

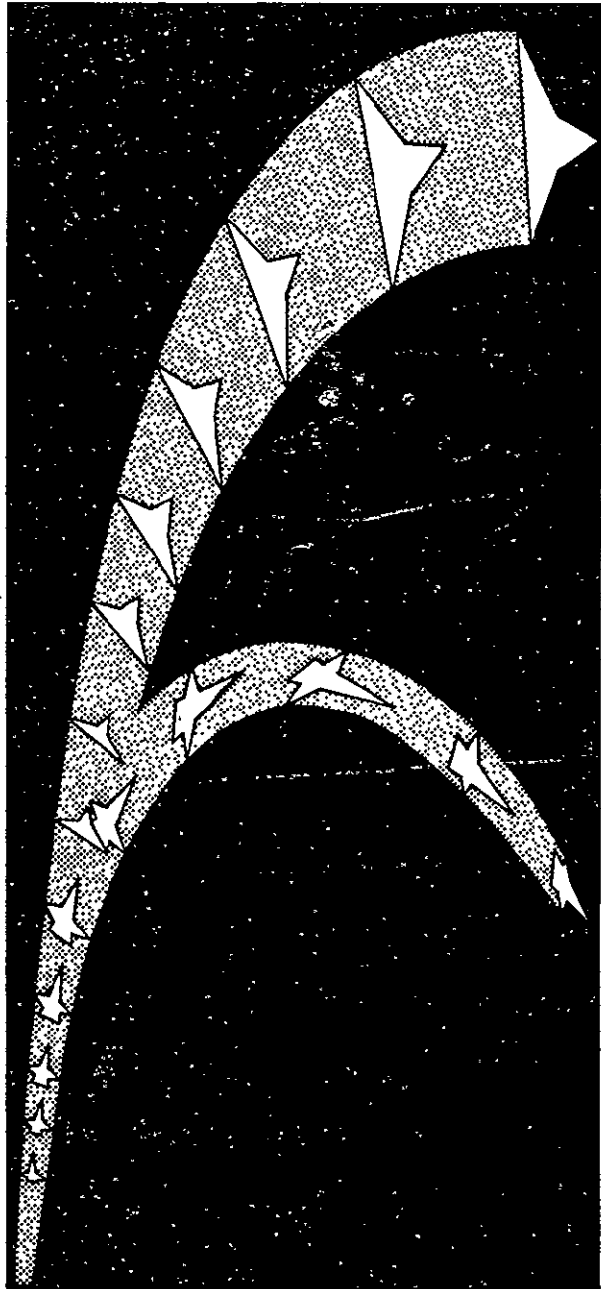
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JULY 1971

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CR-119975



—SPACE SHUTTLE—

**LOW SPEED CRUISE, TAKE OFF AND
LANDING AERODYNAMIC CHARACTERISTICS,
INCLUDING ENGINE EXHAUST EFFECTS
OF THE GD/C B-15B BOOSTER**

by

J. J. Walker, GD/C
W. H. Gallaher, GD/C
J. Burns, GD/C



**GENERAL DYNAMICS
LOW SPEED WIND
TUNNEL**

SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM

CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER

SPACE DIVISION  **CHRYSLER
CORPORATION**

FACILITY FORM 602	<u>71-38678</u>	_____ (THRU)
	(ACCESSION NUMBER)	_____ (CODE)
	<u>384</u>	<u>31</u>
	(PAGES)	(CATEGORY)
	<u>CR-119975</u>	
	(NASA CR OR TMX OR AD NUMBER)	

SADSAC/SPACE SHUTTLE
WIND TUNNEL TEST DATA REPORT

CONFIGURATION: GD/Convair 0.0175 Scale B-15B-1 Booster

TEST PURPOSE: Evaluate Low Speed Cruise, Takeoff and Landing
Characteristics including Cruise Engine Exhaust Effects.
Tunnel hours - 72

TEST FACILITY: GD Low Speed Wind Tunnel

TESTING AGENCY: GD/FWO for GD/SDO

TEST NO. & DATE: GDLST 587-1, March 8 - 18, 1971

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AMENDMENT 151

DRG 107 - 10

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ABSTRACT

A 0.0175 scale of the General Dynamics Corporation B-15B space shuttle booster was tested in the GD Low Speed Wind Tunnel to evaluate some of the low speed take-off, landing and cruise characteristics. To accomplish these objectives, a delta wing was selected from five candidate delta wings and tested in and out of ground plane, with and without cruise-back engine exhaust plume simulation of the dynamic pressure and mass flow ratios (model to full scale). The exhaust plume simulation engines were non-metric, only the indirect plume effects were measured by the six-component balance. Variations in canard, elevon and rudder deflection were tested at the nominal Mach number of 0.201 and Reynolds number of 1.39 million per foot. The maximum angle-of-attack range was -4 to $+24$ degrees, at sideslip angles of 0, 5, and 10 degrees, with smaller ranges for runs in ground plane and cruise engine exhaust simulation. A selected number of runs were performed at angles-of-attack of 0, 8 and 16 degrees at a sideslip angle range of -6 to $+14$ degrees.

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SUMMARY

A 0.0175 scale of the General Dynamics Corporation B-15B space shuttle booster was tested in the GD Low Speed Wind Tunnel to evaluate some of the low speed take-off, landing and cruise characteristics. To accomplish these objectives, a delta wing was selected from five candidate delta wings and tested in and out of ground plane, with and without cruise-back engine exhaust plume simulation of the dynamic pressure and mass flow ratios (model to full scale). The exhaust plume simulation engines were non-metric, only the indirect plume effects were measured by the six-component balance. Variations in canard, elevon and rudder deflection were tested at the nominal Mach number of 0.201 and Reynolds number of 1.39 million per foot. The maximum angle-of-attack range was -4 to +24 degrees, at side slip angles of 0, 5, and 10 degrees, with smaller ranges for runs in ground plane and cruise engine exhaust simulation. A selected number of runs were performed at angles-of-attack of 0, 8 and 16 degrees at a side slip angle range of -6 to +14 degrees.

TABLE I. SUMMARY OF SADSAC NOMENCLATURE - AERODYNAMIC FORCE AND MOMENT COEFFICIENTS

COEFFICIENT	COEFFICIENT NAME	SADSAC NOMENCLATURE		
		BODY AXIS	STABILITY AXIS	WIND AXIS
C_A	Total Axial Force	C_A	-	-
C_{AB}	Base Axial Force	C_{AB}	--	-
C_{AF}	Forebody Axial Force	C_{AF}	-	-
C_D	Total Drag Force	-	C_D	C_{DTOTL}
C_{DB}	Base Drag Force	-	C_{DB}	C_{DBASE}
C_{DF}	Forebody Drag Force	-	C_{DF}	C_{DFORE}
C_L	Lift Force	-	C_L	C_L
C_N	Normal Force	C_N	-	-
C_Y	Side Force	C_Y	C_Y	C_C
C_l	Rolling Moment	C_{BL}	C_{SL}	C_{WL}
C_m	Pitching Moment	C_{LM}	C_{LM}	C_{PM}
C_n	Yawing Moment	C_{YN}	C_{LN}	C_{LN}
L/D	Lift-To-Drag Force Ratio	-	L/D	C_L/C_D
L/D	Lift-To-Forebody Drag Force Ratio	-	L/DF	C_L/C_{DF}
N/A	Normal-To-Axial Force Ratio	N/A	-	-
N/A	Normal-To-Forebody Axial Force Ratio	C_N/C_{AF}	-	-

CONFIGURATIONS INVESTIGATED

Configuration Nomenclature

<u>Symbol</u>	<u>Description</u>
B ₁₉	Basic B-15B booster body with R ₁ rocket engines and fairings installed at all times.
B ₂₁	Basic B-15B-1 booster body with R ₁ rocket engines and X ₁ fairings removable. B ₂₁ is basically the same as B ₁₉ , but has a larger canard fairing.
C ₄	Basic delta canard with a geometric full-scale area of 460 ft ² .
V ₇	Basic vertical tail with a full-scale area of 1274 ft ² $\Lambda_{LE} = 35^\circ$.
R ₁	Outside row of eight rocket engines simulated on the model base. Inner engines are replaced by the model sting.
E ₃₄	Air breathing engine arrangement. Twelve through flow engines individually mounted beneath the wing.
E ₃₅	Engine E ₃₄ exhaust plume simulation. Twelve tubes simulating E ₃₄ exit exhaust conditions with total head probes at exit plane of each simulated engine.
E ₃₆	Same as E ₃₅ with two engines on each side of centerline plugged to simulate a ten engine configuration.
G ₃	Nose and main landing gear.
X ₁	Individually mounted rocket engine shroud fairings mounted on fuselage sides at the model base.
X ₂	Tail cone fairing for the ferry configuration mounted on the model base.
X ₃	Single rocket engine shroud fairing mounted on fuselage sides at the model base.

CONFIGURATIONS INVESTIGATED
(CONTINUED)

<u>Symbol</u>	<u>Description</u>
W ₁₀	Basic B-15B symmetric delta wing with sharp wing tip. Has split elevons with $\Lambda_{LE} = 53^\circ$.
W ₁₄	Clipped delta wing with 4° twist distribution.
W ₁₅	Clipped delta wing with conical camber (mean camber line designed for C_L of 0.215).
W ₁₆	Clipped delta wing with conical camber (mean camber line designed for C_L of 0.350).
W ₁₇	Delta wing with curved and cambered leading edge.
W ₁₈	Clipped delta wing with symmetric airfoil.

Refer to the pages 45 through 54 for dimensional data on the above components.

<u>Combinations Tested</u>		<u>Flow Simulation</u>	
<u>Combinations</u>	<u>Cruise</u>	<u>Ground Plane</u>	<u>Ground Place</u>
B ₁₉ V ₇ C ₄ W ₁₀			
B ₂₁ X ₁			
B ₂₁ X ₁ V ₇			
B ₂₁ X ₁ V ₇ C ₄			
B ₂₁ X ₁ V ₇ C ₄ W ₁₄			
B ₂₁ X ₁ V ₇ C ₄ W ₁₅	X		
B ₂₁ X ₁ V ₇ C ₄ W ₁₆	X		
B ₂₁ X ₁ V ₇ C ₄ W ₁₇	X		

CONFIGURATIONS INVESTIGATED
(CONTINUED)

<u>Combinations Tested (Continued)</u>		<u>Flow Simulation</u>	
<u>Combinations</u>	<u>Cruise</u>	<u>Ground Plane</u>	<u>Ground Place</u>
B ₂₁ X ₁ V ₇ C ₄ W ₁₇	X		
B ₂₁ X ₁ C ₄ W ₁₆	X		
B ₂₁ X ₁ V ₇ W ₁₆	X		
B ₂₁ V ₇ C ₄ W ₁₆ E ₃₄	X		
B ₂₁ X ₁ V ₇ C ₄ W ₁₆ E ₃₄	X		
B ₂₁ X ₁ V ₇ C ₄ W ₁₆ E ₃₄ L ₁	X		
B ₂₁ X ₁ V ₇ C ₄ W ₁₆ E ₃₄ G ₃	X	X	
B ₂₁ X ₂ V ₇ C ₄ W ₁₆ E ₃₄	X		
B ₂₁ X ₃ V ₇ C ₄ W ₁₆ E ₃₄	X		
B ₂₁ X ₁ V ₇ W ₁₆ E ₃₄ G ₃		X	
B ₂₁ X ₃ V ₇ C ₄ W ₁₆ E ₃₄ G ₃		X	
B ₂₁ X ₁ V ₇ C ₄ W ₁₆ E ₃₅ G ₃			X
B ₂₁ X ₁ V ₇ W ₁₆ E ₃₅ G ₃			X
B ₂₁ X ₁ V ₇ C ₄ W ₁₆ E ₃₆ G ₃			X

Refer to the Data Collation Sheets pages 9 through 15 for a complete summary of test variables.

TEST GDLST 587-A DATA SET COLLATION SHEET

ALPHA SWEEP IN FREE AIR

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		CONTROL DEFLECTION				NO. of RUNS	BETA									
		α	β	δ_C	δ_{CL}	δ_R	δ_{RL}		0°	4°	5°	8°	10°					
RCV001	B ₁₉ V ₇ C ₄ W ₁₀	A		0%	0%	0%	0	3	1	2		3						
002	B ₂₁ X ₁ V ₇ C ₄ W ₁₄							2	5		6							
003	B ₂₁ X ₁ V ₇ C ₄ W ₁₅							2	8		9							
004	B ₂₁ X ₁ V ₇ C ₄ W ₁₆							2	11		12							
005	B ₂₁ X ₁ V ₇ C ₄ W ₁₈							2	14		15							
006	B ₂₁ X ₁ V ₇ C ₄ W ₁₇							2	17		18							
007	B ₂₁ X ₁ V ₇ C ₄				-	-		3	19		20		21					
008	B ₂₁ X ₁ V ₇			-	-	-		3	22		23		24					
009	B ₂₁ X ₁			-	-	-		3	25		26		27					
010	B ₂₁ X ₁ V ₇ C ₄ E ₃₄ W ₁₆			0%	0%	0%	0	3	28		29		30					
011	B ₂₁ X ₁ V ₇ C ₄ E ₃₄ W ₁₆ L ₁							3	31		32		33					
012	B ₂₁ X ₁ V ₇ C ₄ E ₃₄ W ₁₆ G ₂							3	34		35		36					
013	B ₂₁ X ₂ V ₇ C ₄ E ₃₄ W ₁₆							3	37		38		39					
014	B ₂₁ X ₃ V ₇ C ₄ E ₃₄ W ₁₆							3	40		41		42					
015	B ₂₁ V ₇ C ₄ E ₃₄ W ₁₆							3	43		44		45					
016	B ₂₁ X ₁ V ₇ C ₄ W ₁₆							3	46		47		48					
017	B ₂₁ X ₁ V ₇ W ₁₆							3	49		50		51					
018	B ₂₁ X ₁ C ₄ W ₁₆							3	52		53		54					
019				3/3	3/3			3	55		56		57					
020				10/10	10/10			3	58		59		60					

1 2 11 19 25 31 37 43 49 55 61 67 7576
CL CY CD CSL CLM CLN CAB CA WDOT CT BETA ALPHA 10

COEFFICIENTS:

α or β

SCHEDULES

$$\alpha = -4 \text{ to } +24^\circ \quad \Delta\alpha = 2^\circ$$

IDPVAR(1) IDPVAR(2) NDV

TEST GDLST 587-1 DATA SET COLLATION SHEET

ALPHA SWEEP IN FREE AIR

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		CONTROL DEFLECTION				NO. of RUNS	BETA									
		α	β	δ_C	δ_{EL}	δ_{ER}	δ_R		0°	4°	5°	8°	10°	...				
RCV 021	B ₂₁ X ₁ C ₄ V ₇ W ₁₆	A		0/0	-10/10	-10/10	0	3	61		62		63					
022					0/0	0/0		3	64		65		66					
023					3/3	3/3		3	67		68		69					
024					6/6	6/6		3	70		71		72					
025					10/10	10/10		3	73		74		75					
026				5/5	0/0	0/0		2	102		103							
027				10/10				3	105		106		107					
028				15/15				3	111		112		113					
029				20/10				3	114		115		116					
030				-10/10				3	120		121		122					
031					-10/10	-10/10		1	123									
032				15/15	3/3	3/3		1	127									

10

1 7 13 19 25 31 37 43 49 55 61 67 75 76
 CL CY CD CSL CLM CLN CAB CA WDOT CT BETA ALPHA 10

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β

SCHEDULES

TEST GDLST 587-1 DAT. SET COLLATION SHEET

ALPHA SWEEP IN FREE AIR

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		CONTROL DEFLECTION				NO. of RUNS	MACH NUMBERS									
		α	β	δ_C	δ_{CL}	δ_{CR}	δ_R		.180	.201	.224	.259	.318					
RCV041	B21X1C4V7W16	A	0	0/0	0/0	0/0	0	1		76								
042					-10/0	-10/0		1		77								
043					0/-10	0/-10		1		78								
044					0/10	0/10		1		79								
045					0/10	0/-10		1		80								
046					10/10	-10/-10		1		81								
047					10/0	-10/0		1		82								
048					20/0	-20/0		1		83								
049					20/0	-20/0		1		84								
050					0/20	0/20		1		85								
051					0/0	0/0		5	95	94	93	92	91					
052	B21XIV7W16			-	-20/-20	-20/-20		1		86								
053				-	10/10	10/10		1		87								
054				-	6/6	6/6		1		88								
055				-	-10/-10	-10/-10		1		89								
056				-	0	0		1		90								

1 7 13 19 25 31 37 43 49 55 61 67 7576

CL CY CD CSL CLM CLN CAB CA WDPCT CT MACH ALPHA IC

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β

SCHEDULES

TEST GDLST 587-1 DATA SET COLLATION SHEET

FREE AIR BETA SWEEPS AT CONSTANT ALPHA

☐ PRETEST

☒ POSTTEST

[illegible]

2

1	7	13	19	25	31	37	43	49	55	61	67	73	79
CL	CY	CD	CSL	CLM	CLN	CAB	CA	WDDT	CT	ALPHA	SET		

COEFFICIENTS:

a or b'

SCHEDULES

→ IDPVAR(1) IDPVAR(2) NDV

TEST GDLST 587-1 DATA SET COLLATION SHEET

MODEL IN GROUND PLANE

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		CONTROL DEFLECTION				NO. of RUNS	ELEVATION									
		α	β	δ_C	δ_{EL}	δ_{ER}	δ_R		-20°	-10°	0°	3°	10°					
RCVG01	B ₂₁ X ₁ V ₇ C ₄ W ₁₆ G ₃ +GP	D	0	10/10			0°	4	134	133	132		131					
G02				0/0				1			139							
G03				5/5				1			140							
G04				20/20				1			141							
G05				15/15				2			142	143						
G06	B ₂₁ X ₁ V ₇ W ₁₆ G ₃			-				4	135	136	138		137					
G07	B ₂₁ X ₁ V ₇ C ₄ W ₁₆ G ₃ E ₃₄			15/15				1				144						
G08				10/10				5	148	147	149	145	146					
G09				0/0				1			150							
G10							10°	1			151							
G11				10/10	-10/10		0°	1			152							
G12		5						1			153							
G13		0		90/90				1	154									
G14	B ₂₁ X ₃ V ₇ C ₄ W ₁₆ G ₃ E ₃₄			10/10				1			155							

13

1	7	13	19	25	31	37	43	49	55	61	67	73	76
CL	KY	FD	CSL	CLM	CLN	CAB	CA	LLDOT	CT	ELEV	ALPHA	1	
COEFFICIENTS: $\alpha_D = -4$ to $+16^\circ$ @ $\Delta K = 2^\circ$													
SCHEDULES:													

→ IDPVAR(1) IDPVAR(2) NDV

TEST GDLST 587-1 DATA SET COLLATION SHEET

☐ PRETEST

☐ POSTTEST

FLOW SIMULATION IN GROUND PLANE

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		CONTROL DEFLECTION				NO. OF RUNS	FLOW									
		α	β	δ_c	δ_{cL}	δ_{cR}	δ_R		0	.13	.21	.29	.43	.52	.62			
RCVGF1	B ₂₁ X ₁ V ₇ C ₄ W ₆ G ₃ E ₃₅	F	0°	0/0	0/0	0/0	0	3	157					158	159			
GF2				-10/10				3	160					161	162			
GF3				10/10	10/10	10/10		7	163	164	165	166	167	168	169			
GF4					-10/10	-10/10		3	170					171	172			
GF5					-20/20	-20/20		3	173					174	175			
GF6					0/0	0/0		3	176					177	178			
GF7				15/15	3/3	3/3		3	179					180	181			
GF8				20/10	10/10	10/10		3	182					183	184			
GF9					0/0	0/0		3	185					186	187			
GF0	B ₂₁ X ₁ V ₇ W ₆ G ₃ E ₃₅			-	-20/20	-20/20		3	188					189	190			

1 7 13 19 25 31 37 43 49 55 61 67 75 76
 CL CY CD CSL CLM CLN CAB CA MUDAT CT FLOW ALPHA IC

COEFFICIENTS:

$$\alpha_F = -2 \text{ to } +16^\circ @ \Delta X = 2^\circ$$

→ IDPVAR(1) IDPVAR(2) NDV

α or β

SCHEDULES

FLOW SIMULATION IN FREE AIR

☒ POSTTEST

[illegible]

57

1	7	13	19	25	31	37	43	49	55	61	67	7576
CL	KY	CD	CEL	CLM	CLN	AB	EA	VDOT	CT	FLAV	ALPHA	IC
COEFFICIENTS:										IDPVAR(1) IDPVAR(2) NDV		
α or β												
SCHEDULES												

TEST FACILITY

The General Dynamics/Convair low speed wind tunnel is a close-return atmospheric tunnel, constructed of reinforced concrete. Airflow is created by a 6-bladed propeller, 20 feet in diameter, powered by a 2250-horsepower synchronous motor.

The tunnel has a primary test section 8 feet high, 12 feet wide and 25 feet long. A model or component can be tested in this section at air-speeds up to 300 mph. The sides and ceiling of the test section are largely glass windows. These windows and fluorescent lights, housed in corner fillets in the test section, provide excellent model observation and model photography. Personnel access doors open directly into the test section from the control room and the model service area.

A variety of support systems are available for mounting a model or component. These support systems include single, bicycle, and three-strut supports, sting supports and supports for two dimensional installations.

Digital computer and plotting facilities are available so that the results of a test run can be processed, tabulated, and plotted within 10 minutes of the test run.

TEST CONDITIONS
GOLST 587-1

[illegible]

BALANCE UTILIZED: GD/Convair, Balance C-5-1.50

CAPACITY:

NF	<u>500 lbs</u>
SF	<u>500 lbs</u>
AF	<u>140 lbs</u>
PM	<u>3200 in-lbs</u>
YM	<u>1200 in-lbs</u>
RM	<u>1000 in-lbs</u>

ACCURACY:

1. The first step is to identify the key components of the system. This involves understanding the inputs, outputs, and internal processes.

2. The second step is to define the objectives and goals of the system. This helps to determine what the system is designed to achieve.

3. The third step is to develop a detailed design. This includes specifying the hardware, software, and other resources needed.

4. The fourth step is to implement the design. This involves building the system and testing it to ensure it works as intended.

5. The fifth step is to maintain the system. This includes monitoring its performance and making any necessary updates or repairs.

COEFFICIENT
TOLERANCE:

[illegible]

COMMENTS :

DATA REDUCTION

FOR SADSAC

Aerodynamic forces and moments were measured with the Convair C-5-1.50 six-component balance. Seven base and two cavity pressures were measured. The data presented have been corrected for tunnel wall effects before reducing to coefficient form about the Moment Reference Center (MRC). For all data presented, the MRC was at Fuselage Station (FS) 50.936 and Water Line (WL) 21.000, which corresponds to 33.436 inches from the model nose, along the model centerline, and 3.938 inches above the trailing edge of the bottom of the model for the basic delta wing. Model wing dimensional data used to reduce the test data depended upon the wing tested and is located below:

<u>Wing</u>	<u>$S_{REF}(in^2)$</u>	<u>$l_{REF}(in)$</u>	<u>$b_{REF}(in)$</u>
W ₁₀	343.87	15.062	30.440
W ₁₄	380.30	15.215	30.440
W ₁₅	380.30	15.215	30.440
W ₁₆	380.30	15.215	30.440
W ₁₇	374.40	15.386	30.440
W ₁₈	380.30	15.215	30.440

The fuselage base area used was 44.011 in² and the fuselage cavity area was 4.909 in². No wing runs were based upon wing W₁₆ as reference.

DATA REDUCTION
(CONTINUED)

The data was reduced to coefficient form using the normal expressions, except for a cavity pressure to base pressure correction to the axial force coefficient and the flow simulation flow rate and thrust coefficient. The two pressure tubes in the balance cavity were manifolded together to provide one measurement denoted as p_c . This pressure along with the averaged base pressure (p_b) was used to correct the axial force as follows:

$$C_{A_{TC}} = \frac{(p_c - p_b)}{q} \frac{A_c}{S_{REF}}$$

and $C_A = C_{A_{BALANCE}} + C_{A_{TC}}$

where A_c = cavity area.

The flow rate was measured by an ASME contoured 1.8 inch diameter flow nozzle and reported as weight flow. The thrust coefficient was calculated as

$$C_T = \frac{T}{q S_{REF}}$$

where $T = \frac{W}{32.2} \cdot V$, was summed for each nozzle

V = exit velocity from the total head measurements

W = weight flow

DATA REDUCTION (Continued)

BY SADSAC

Incremental data for elevon and canard deflection was obtained for several configurations by subtracting runs. The incremental data was obtained by subtracting runs of zero surface deflection from runs of a given surface deflection. These data are identified in the plot title as "Increment due to . . .".

In addition an increment due to flow simulation was added to a number of runs. The following equation were used in adding this increment.

$$CLM_{Simulation} = CLM_{No Simulation} + CT (a/c)$$

$$CA_{Simulation} = CA_{No Simulation} - CT$$

$$CL_{Simulation} = (CN_{No Simulation})(\text{Cosine Alpha}) - (CA_{Simulation})(\text{Sine Alpha})$$

$$CD_{Simulation} = (CN_{No Simulation})(\text{Sine Alpha}) + (CA_{Simulation})(\text{Cosine Alpha})$$

Where

$$a = 4.740$$

$$c = 15.215$$

These data are identified in the plot title as ". . . thrust added to . . .".

SUMMARY DATA PLOT INDEX

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Comparison of Wings Tested	A	Configuration	1-14
Effect of Twist in Wings	B	Configuration	15-18
Effect of Conical Camber	B	Configuration	19-22
Effect of Curved and Cambered Leading Edge	B	Configuration	23-26
Comparison of Selected W17 and W10	B	Configuration	27-30
Body Build-up to Cruise Configuration	A	Configuration	31-51
Effect of Orbiter Separation Links	A	Configuration	52-58
Effect of Landing Gear	A	Configuration	59-65
Effect of Aft Fairings	A	Configuration	66-86
Effect of Engines	A	Configuration	87-93
Effect of Canard - Wing On and Off	B	Configuration	94-97
Full Span Elevon Effectiveness B-15B-1 Configuration	B	Elevon Deflection	98-109
Outboard Elevon Effectiveness B-15B-1 Configuration	B	Elevon Deflection	110-113
Inboard Elevon Effectiveness B-15B-1 Configuration	B	Elevon Deflection	114-117
Full Span Elevon Effectiveness - Canard Off	B	Elevon Deflection	118-121

SUMMARY DATA PLOT INDEX
(CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
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Canard/Elevon Deflectio B-15B-1 Configuration	B	Canard & Elevon Deflection	126-129
Full Span Aileron Effec B-15B-1 Configuration	C	Aileron Deflection	130-135
Outboard Aileron Effectiveness B-15B-1 Configuration	C	Aileron Deflection	136-141
Inboard Aileron Effectiveness B-15B-1 Configuration	C	Aileron Deflection	142-147
B-15B-1 Configuration in Yaw With Canard Deflection	D	Canard Deflection	148-156
B-15B-1 Configuration in Yaw With Rudder Deflection	D	Rudder Deflection	157-159
B-15B-1 Configuration in Yaw Near (L/D) Max	D	Canard & Elevon Deflection	160-162
Elevon Effectiveness in Ground Plane - CANVTR = 10 Degrees	B	Elevon Deflection	163-166
Canard Effectiveness in Ground Plane - ELEVTR = 0 Degrees	B	Canard Deflection	167-170
Elevon Effectiveness - Canard Off Configuration - In Ground Plane	B	Elevon Deflection	171-174

SUMMARY DATA PLOT INDEX
(CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Elevon Effectiveness Engines E-34 On - In Ground Plane - CANVTR = 10 Degrees	B	Elevon Effective- ness	175-178
Effect of Engines E34 In Ground Plane	B	Configuration, Canard & Elevon Deflection	179-182
Yaw, Rudder and Outboard Aileron In Ground Plane	C	Beta, Rudder and Aileron Deflection	183-188
Canard Effectiveness In Ground Plane	B	Canard Effective- ness	189-192
Effect of Aft Shrouds In Ground Plane	B	Configuration	193-196
Effect of Ground Plane - Landing Gear On	B	Ground Plane	197-200
Effect of Flow Simulation In Ground Plane B-15B-1	B	Flow Simulation	201-204
Effect of Flow Simulation In Ground Plane for DC = -10, DE = 0 Degrees	B	Flow Simulation	205-208
Effect of Flow Simulation In Ground Plane for DC = DE = 10 Degrees	B	Flow Simulation	209-212
Effect of Flow Simulation In Ground Plane for DC = 10, DE = -10 Degrees	B	Flow Simulation	213-216
Effect of Flow Simulation In Ground Plane for DC = 10, DE = -20 Degrees	B	Flow Simulation	217-220
Effect of Flow Simulation In Ground Plane for DC = 10, DE = 0 Degrees	B	Flow Simulation	221-224

SUMMARY DATA PLOT INDEX
(CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Effect of Flow Simulation In Ground Plane for DC = 15, DE = 3 Degrees	B	Flow Simulation	225-228
Effect of Flow Simulation In Ground Plane for DC = 20, DE = 10 Degrees	B	Flow Simulation	229-232
Effect of Flow Simulation In Ground Plane for DC = 20, DE = 0 Degrees	B	Flow Simulation	233-236
Canard Off Configuration - Flow Simulation In Ground Plane for DE = -20 Degrees	B	Flow Simulation	237-240
Canard Effectiveness at Take-Off Thrust, DE = 0 Degrees	B	Canard Deflection	241-244
Elevon Effectiveness at Take-Off Thrust, DC = 10 Degrees	B	Elevon Deflection	245-248
Canard/Elevon at Take-Off Thrust	B	Canard and Elevon Deflection	249-252
Effect of Flow Simulation in Free Air B-15B-1	B	Flow Simulation	253-256
Effect of Flow Simulation in Free Air B-15B-1	B	Flow Simulation	257-260
Effect of Flow Simulation in Free Air B-15B-1	B	Flow Simulation	261-264
Effect of Flow Simulation in Free Air B-15B-1	B	Flow Simulation	265-268
Effect of Flow Simulation in Free Air B-15B-1	B	Flow Simulation	269-272
Effect of Flow Simulation in Free Air B-15B-1	B	Flow Simulation	273-276

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TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
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Effect of Flow Simulation in Free Air B-15B-1	B	Flow Simulation	281-284
Effect of Flow Simulation in Free Air B-15B-1	B	Flow Simulation	285-288
Canard Off Configuration With Flow Simulation In Free Air	B	Flow Simulation	289-292
Canard Deflection With Flow Simulation in Free Air for DE - 0 Degrees	B	Canard Deflection	293-296
Canard/Elevon Deflection for Cruise Thrust	B	Canard and Elevon Deflection	297-300
Effect of Ten Versus Twelve Engines At Cruise Thrust	B	Configuration	301-304
Effect of Cruise ABES on Longitudinal Characteristics	E	Alpha	305-309
Effect of ABES in Ground Plane on Longitudinal Characteristics	E	Alpha	310-314
Increment Due to Elevon Deflection B-15B-1	F	Alpha	315-317
Increment Due to Canard Deflection B-15B-1	G	Alpha	318-320
Increment Due to Aileron Deflection B-15B-1	H	Alpha	321-324

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Increment Due to Elevon Deflection - Canard Off Configuration	F	Alpha	325-327
Increment Due to Elevon Deflection in Ground Plane, DC = 10 Degrees B-15B-1	F	Alpha	328-330
Increment Due to Canard Deflection in Ground Plane, DE = 0 Degrees B-15B-1	G	Alpha	331-333
Increment Due to Elevon Deflection in Ground Plane Canard Off Configuration	F	Alpha	334-336
Increment Due to Elevon With Flow Simulation in Ground Plane, B-15B-1 DC = 10	F	Alpha	337-339
Increment Due to Canard With Flow Simulation in Ground Plane, B-15B-1 DE = 0	G	Alpha	340-342
Increment Due to Canard With Flow Simulation in Free Air, B-15B-1 DE = 0 Degrees	G	Alpha	343-345
Effect of Take-Off Thrust Added to Coefficients - G.P., E34 Off	I	Elevator Deflection	346-349
Effect of Take-Off Thrust Added to Coefficients - G.P., E34 Off	I	Canard Deflection	350-353
Take-Off Thrust Added to Coefficients - G.P., E34 Off	I	Canard and Elevator Deflection	354-357
Take-Off Thrust Added to Coefficients - G.P., Canard Off, E34 Off	I		358-361

SUMMARY DATA PLOT INDEX
(CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Take-Off Thrust Added to Coefficients - G.P., E34 On	I	Elevator Deflection	362-365
Effect of E34, Take-Off Thrust Added - G. P.	I	Engines	366-369
Cruise Thrust Added - Free Air - Canard Off, E34 Off	I	Elevator Deflection	370-373
Cruise Thrust Added - Free Air - E34 Off	I	Elevator Deflection	374-377
Cruise Thrust Added - Free Air - E34 Off	I	Canard and Elevator Deflection	378-381

PLOTTED COEFFICIENTS SCHEDULE:

- | | |
|---|---|
| <p>(A) CL vs. ALPHA, CL vs. CD, CL vs. L/D &
CL vs. CLM CY, CLN & CSL vs. ALPHA</p> <p>(B) CL vs. ALPHA, CL vs. CD, CL vs. L/D &
CL vs. CLM</p> <p>(C) CY, CLN, CSL, CL & CD vs. ALPHA
CL vs. CLM</p> <p>(D) CY, CLN & CSL vs. BETA</p> <p>(E) CL, CD, CLM, L/D, & CAB vs. Flow</p> | <p>(F) CN, CLM & CA vs. ELEVTR</p> <p>(G) CN, CLM & CA vs. CANVTR</p> <p>(H) CA, CY, CLN & CSL vs. AILRON</p> <p>(I) CL, CA & CT vs. ALPHA
CL vs. CLM</p> |
|---|---|

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows.
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity.

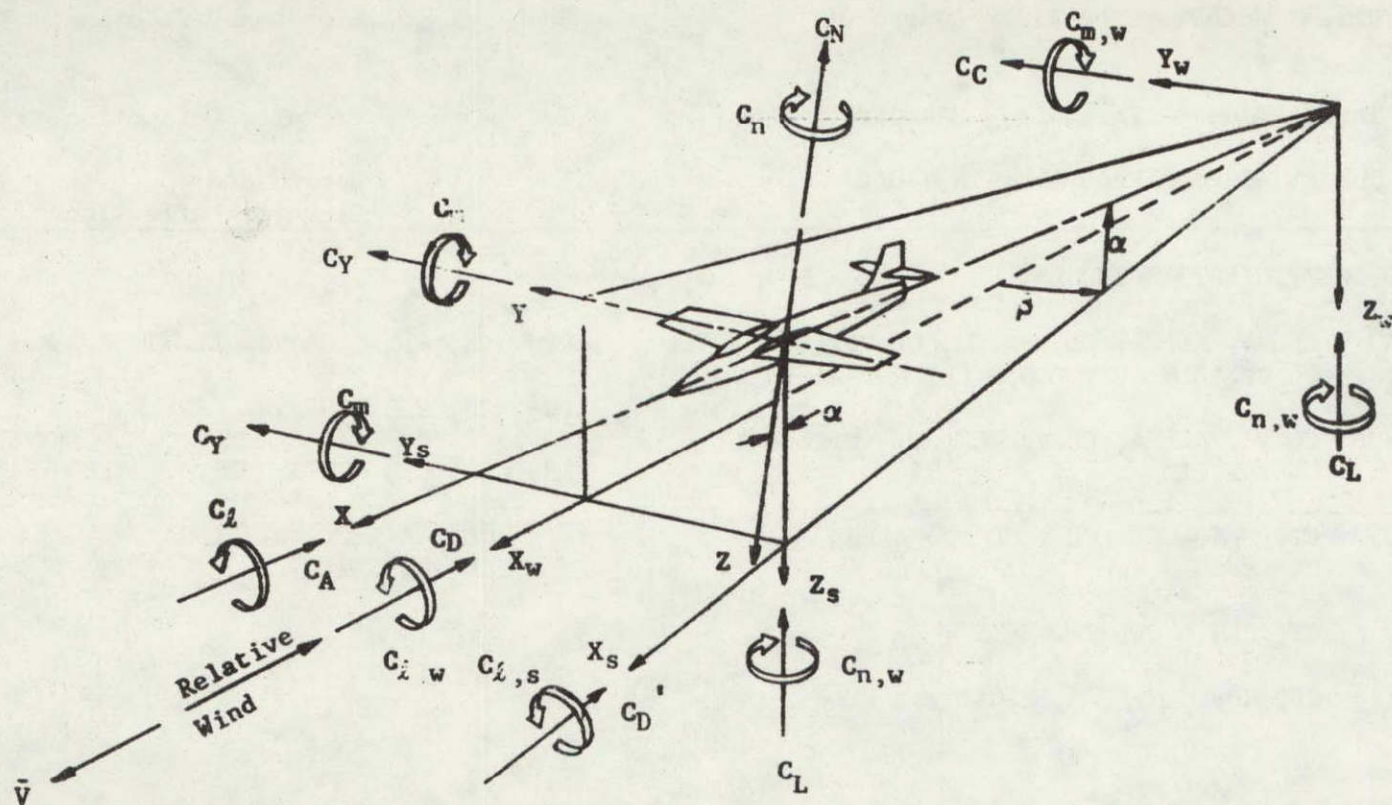
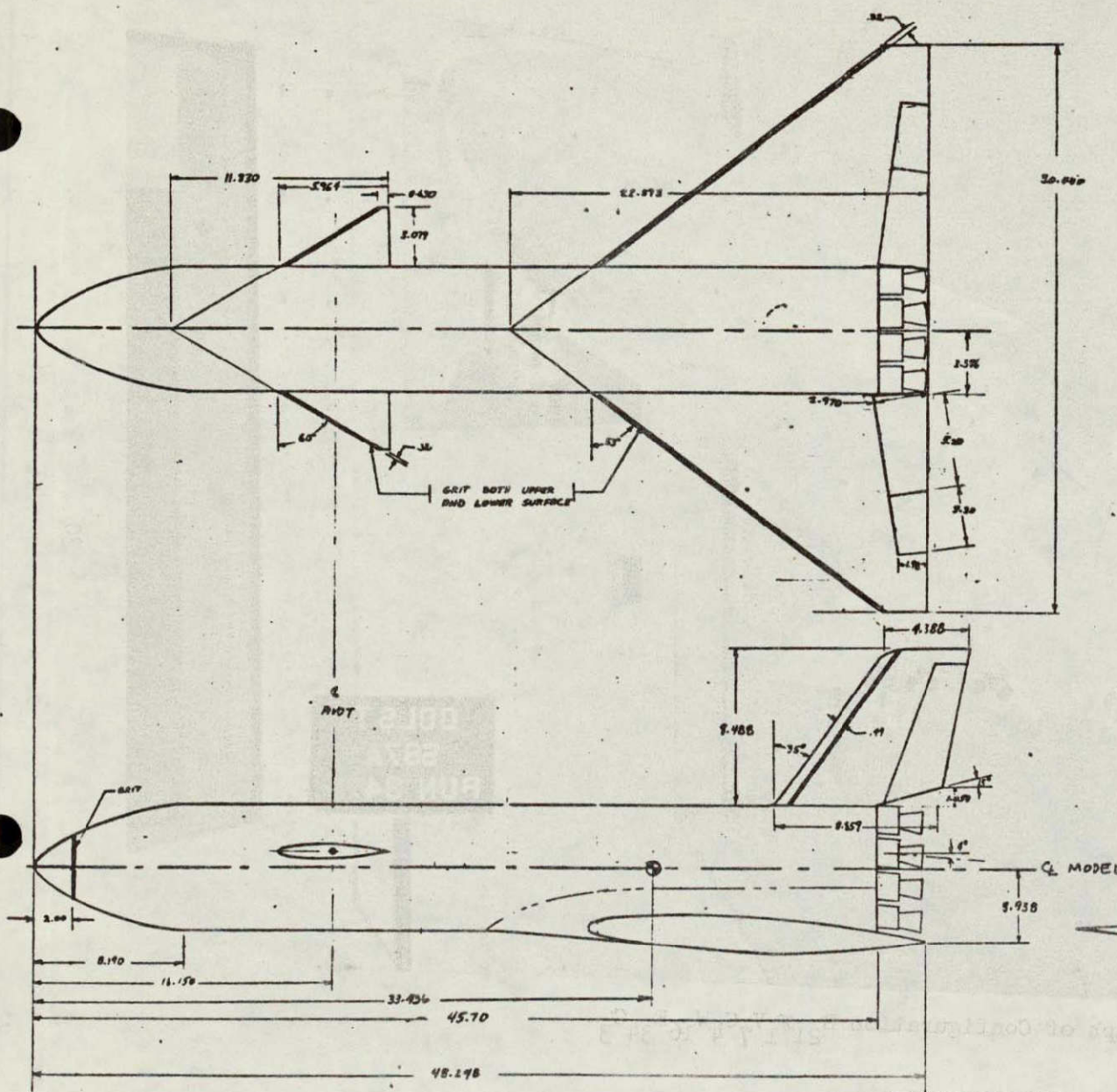


Figure 1. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle



NOTE: 1) GRIT #20 USED ON NOSE
2) GRIT #60 USED ON OTHER SURFACES
3) WIDTH OF GRIT = 0.05" LOCATED 0.6" FROM LE PARALLEL TO FLOW VELOCITY

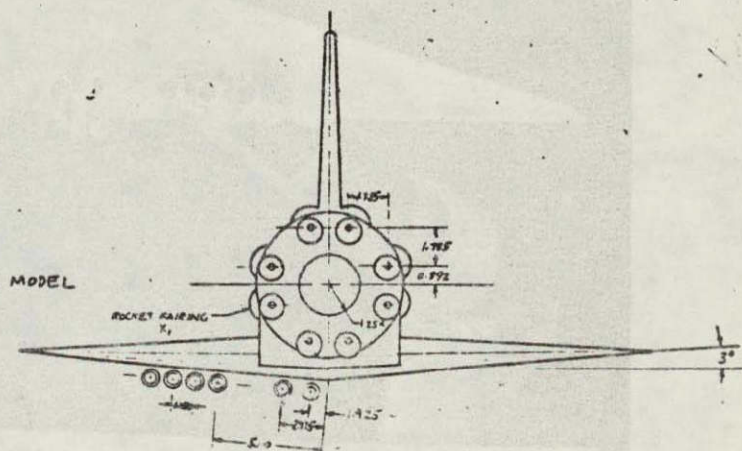


Figure 2. Three View of the 0.0175 Scale B-15B-1 Booster Model.

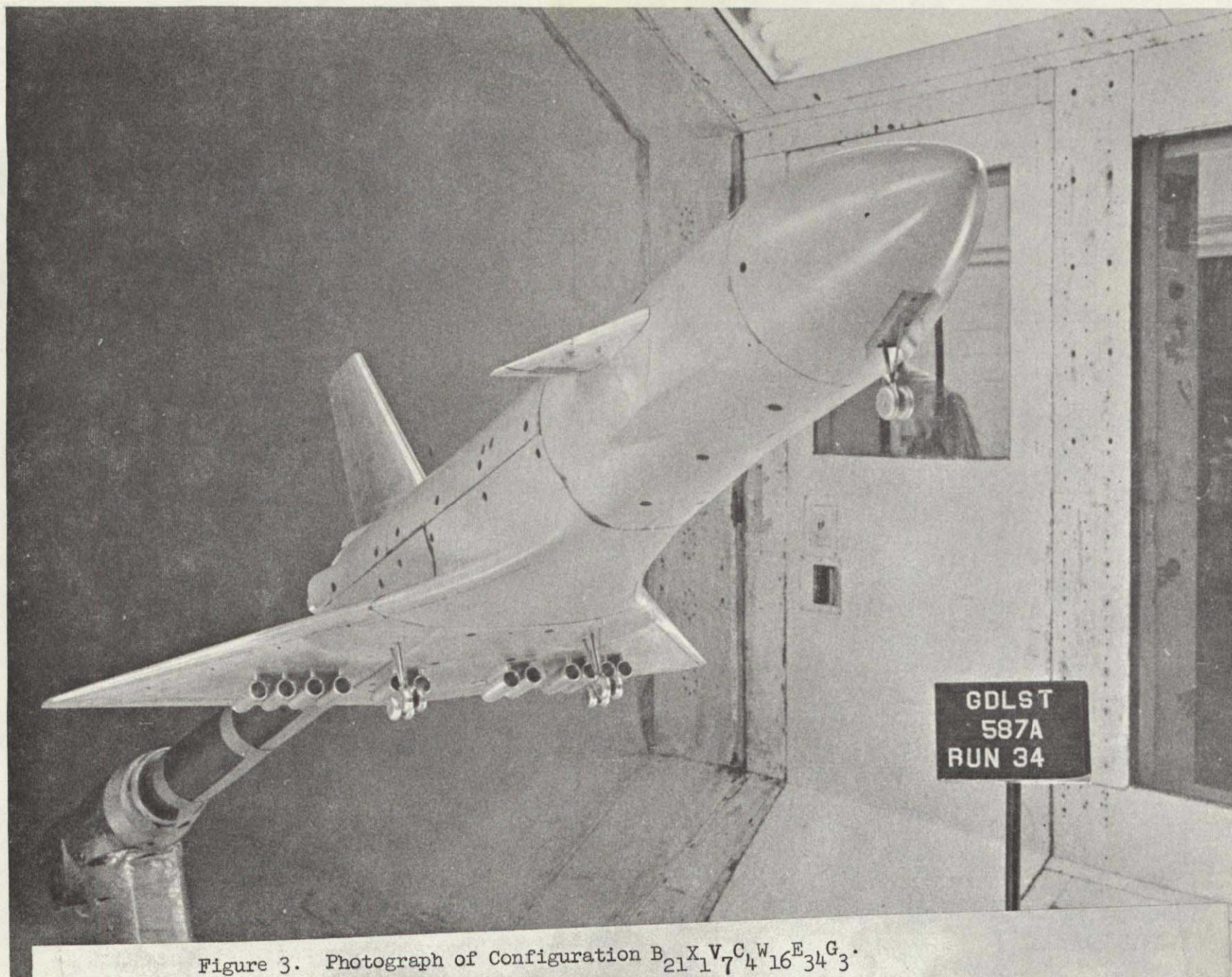
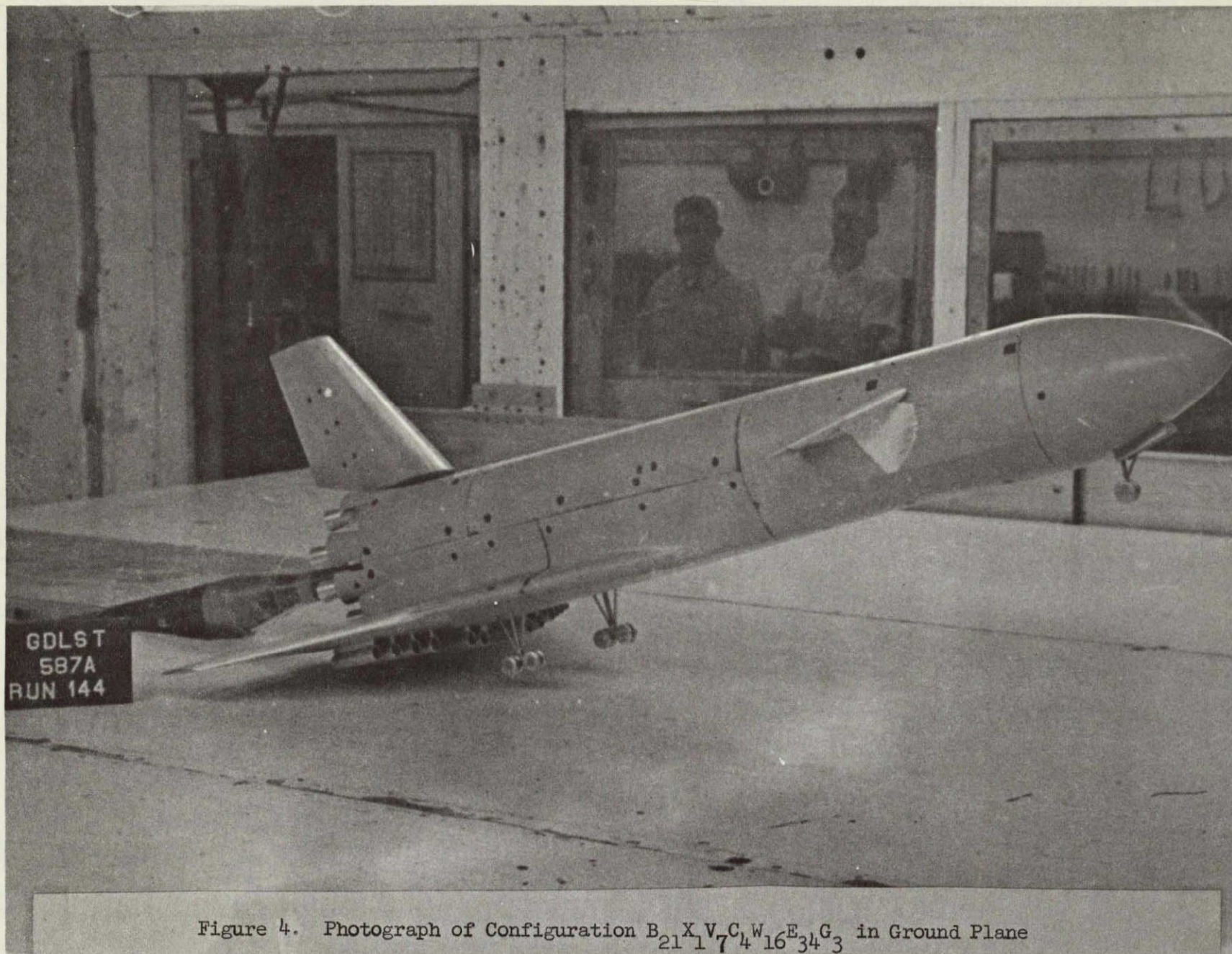


Figure 3. Photograph of Configuration $B_{21}^{XV7C4W16E34G3}$.

NOT REPRODUCIBLE



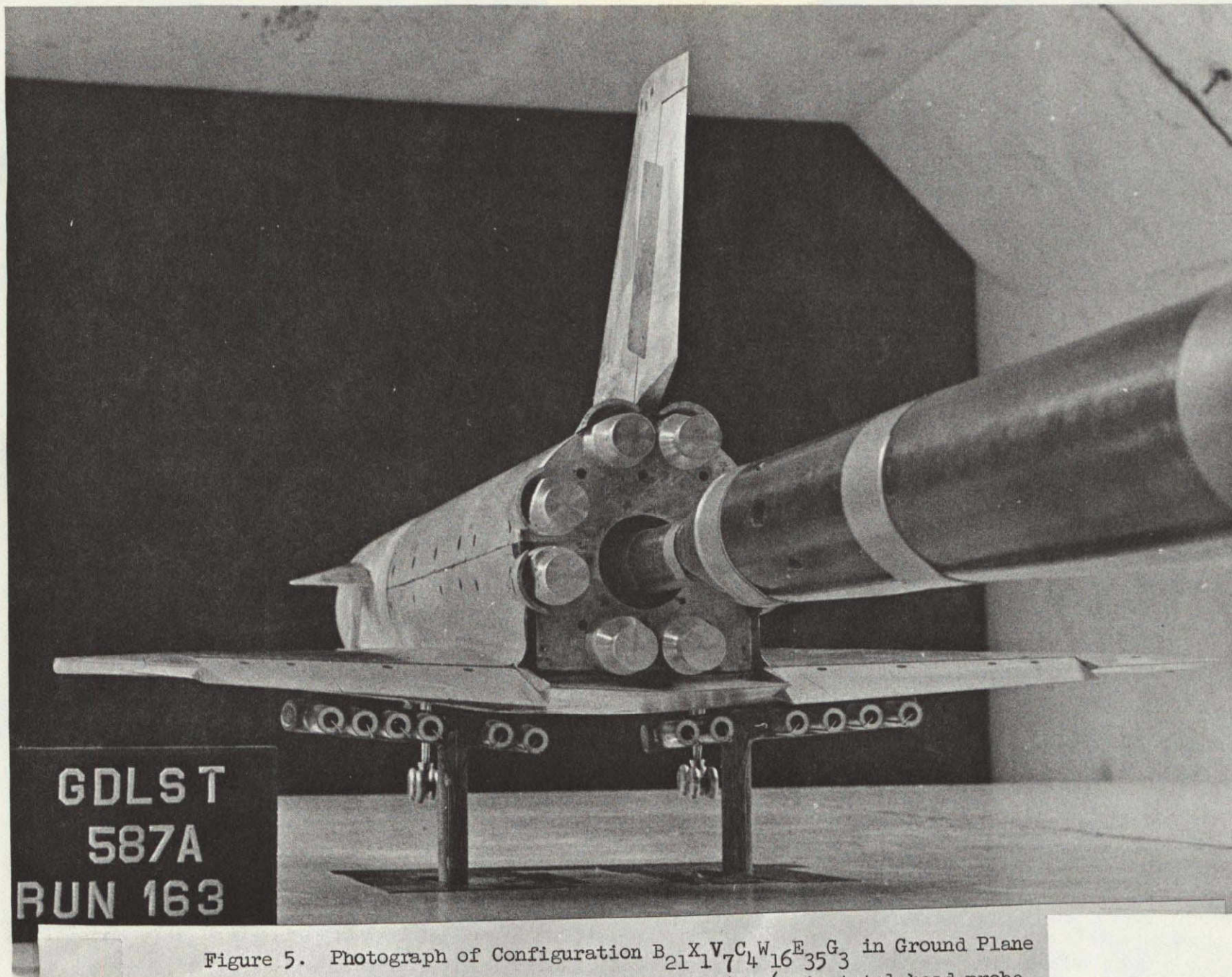


Figure 5. Photograph of Configuration $B_{21} X V C W_{16} E_{35} G_3$ in Ground Plane with Cruise Engine Exhaust Simulation (note total head probe for each engine).

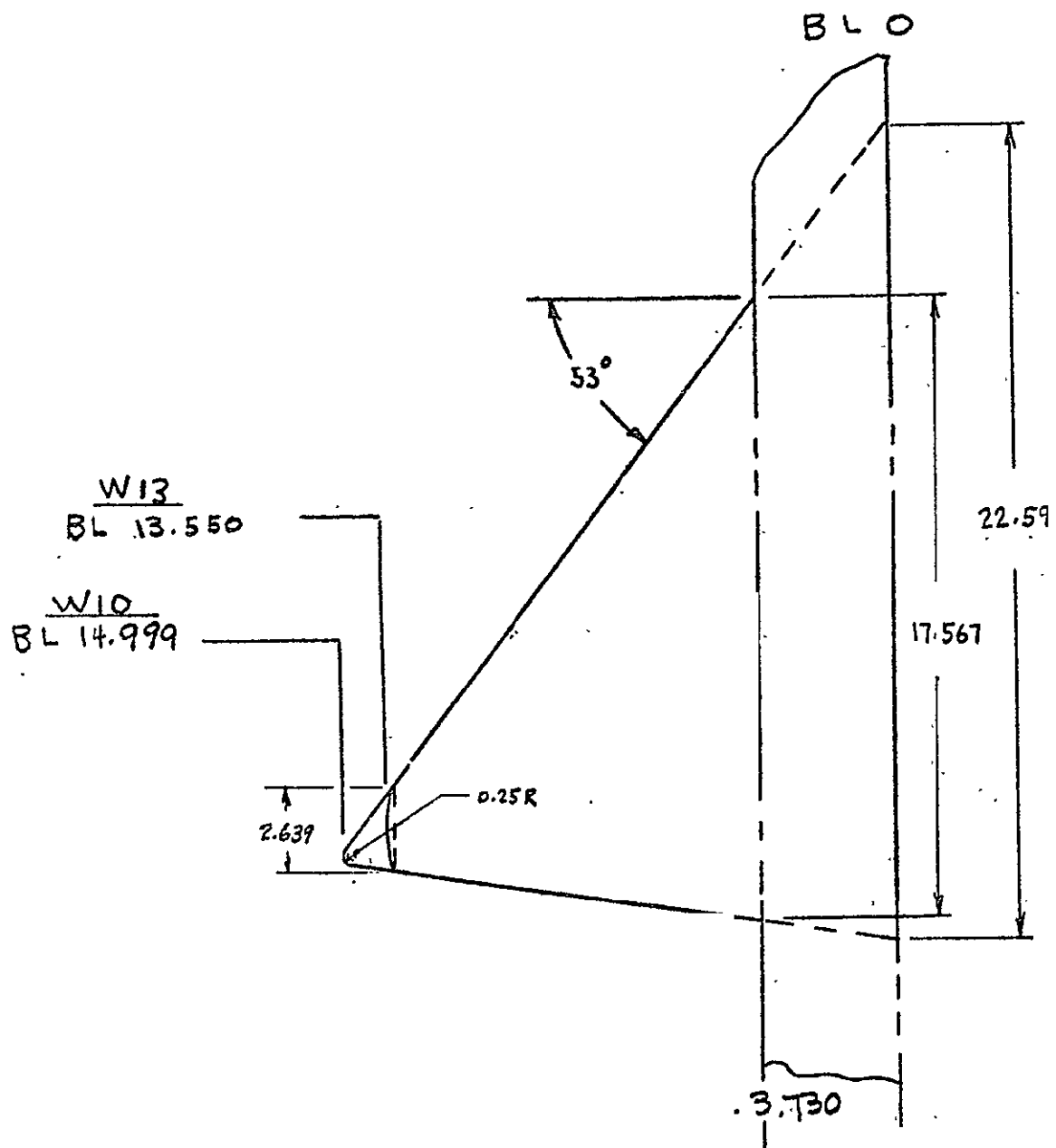


FIGURE 6. WINGS W10 AND W13

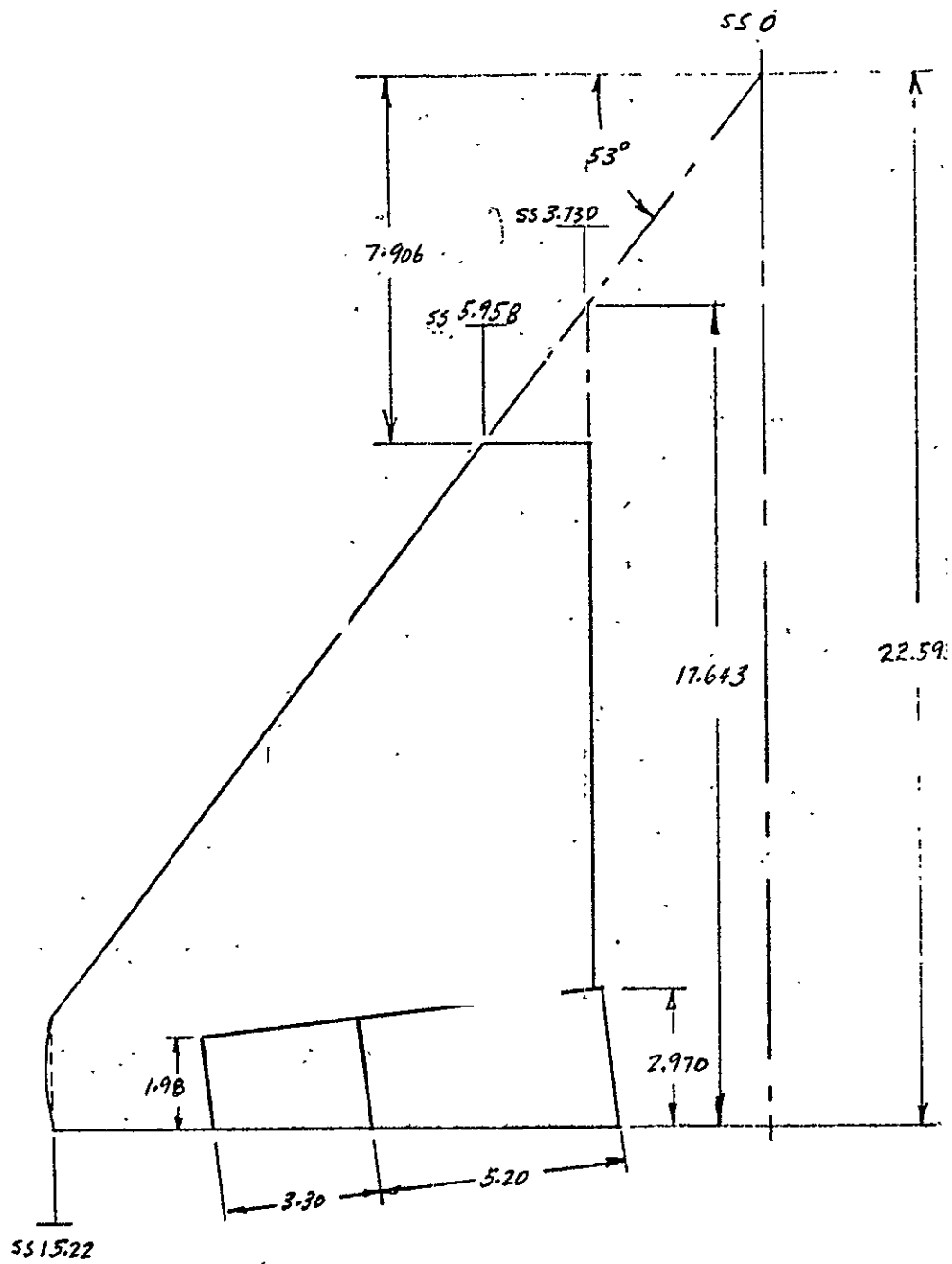


FIGURE 7. WING W14

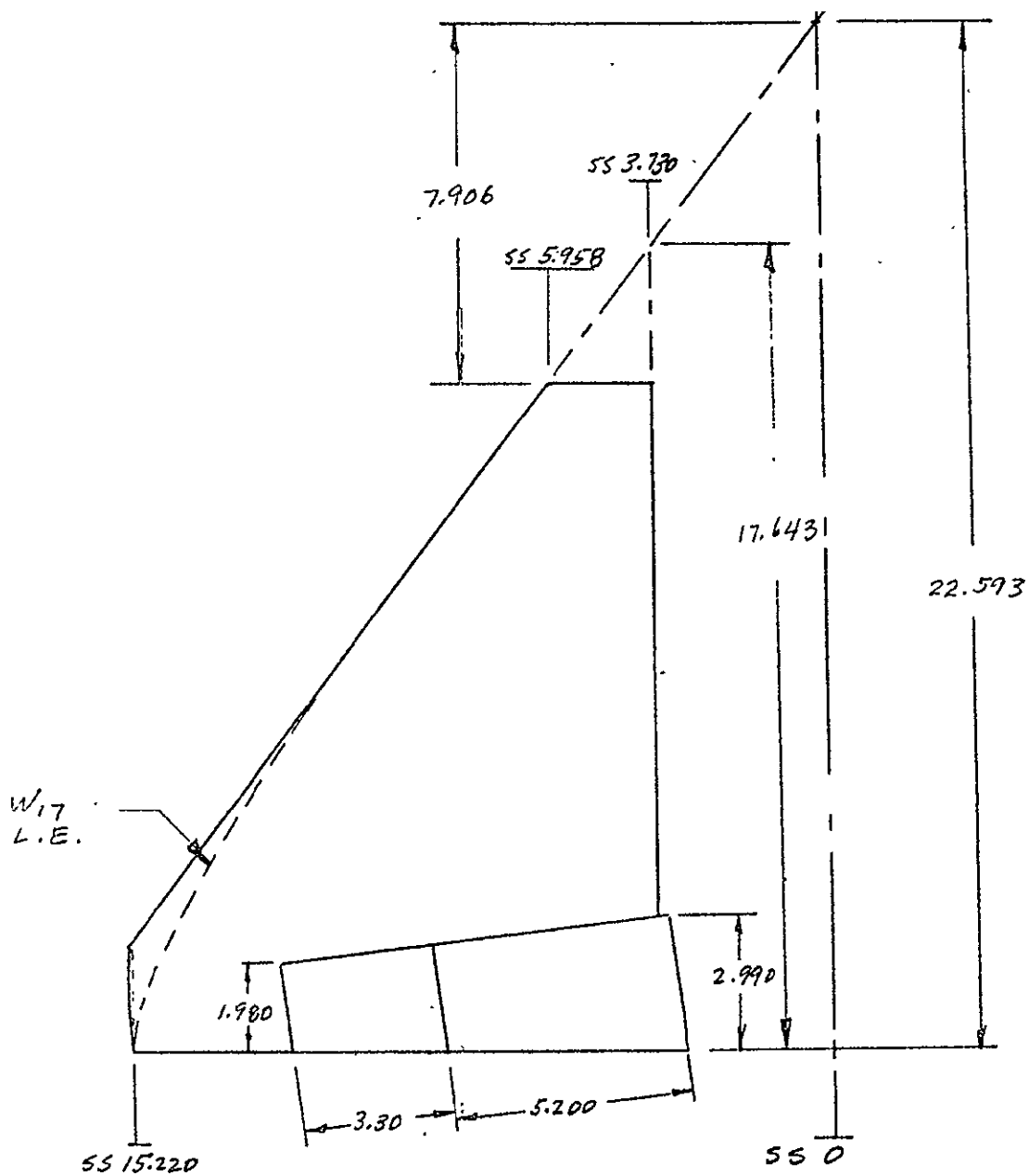


FIGURE 8. WINGS W_{15} , W_{16} , W_{17} , W_{18}

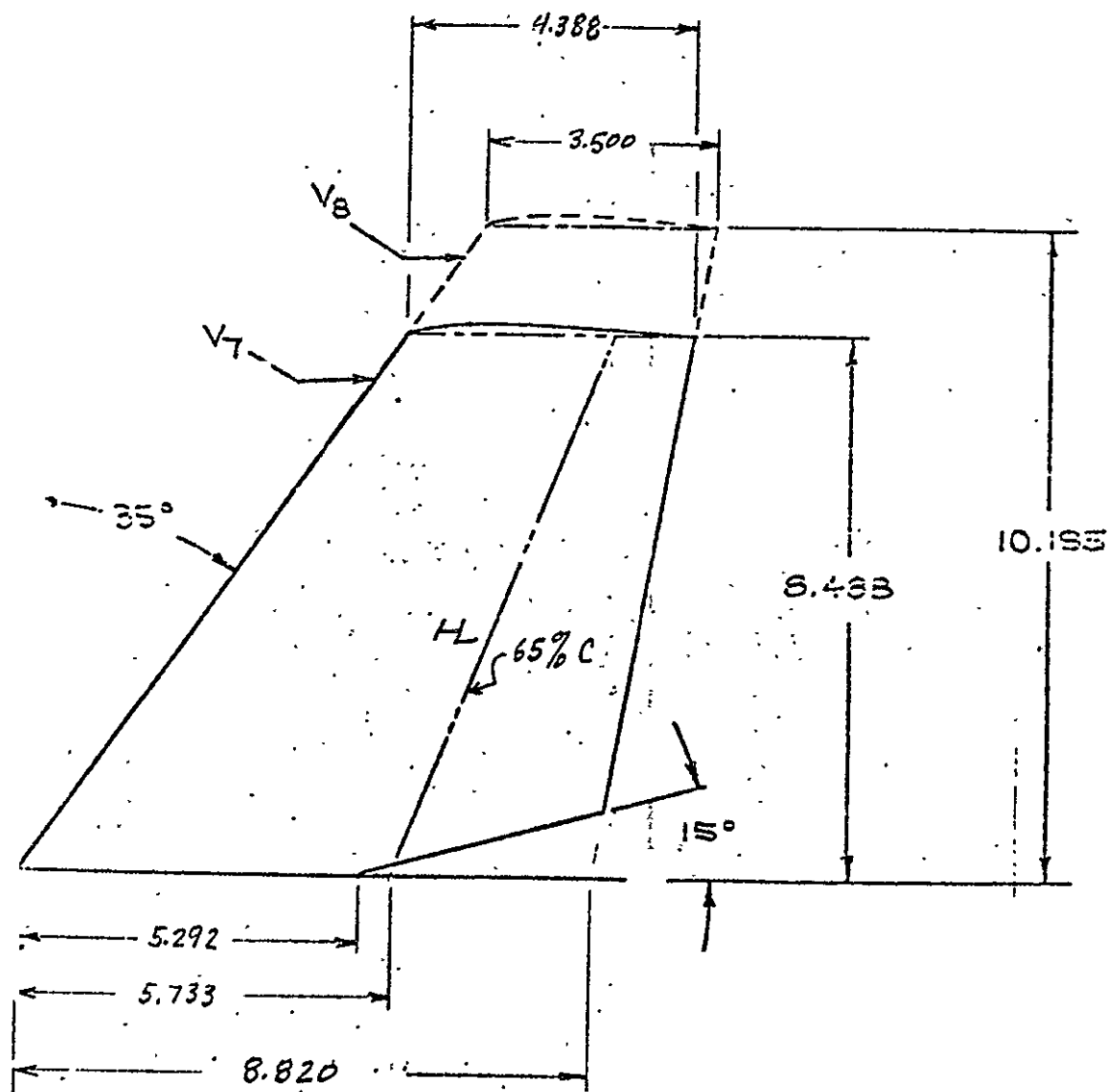
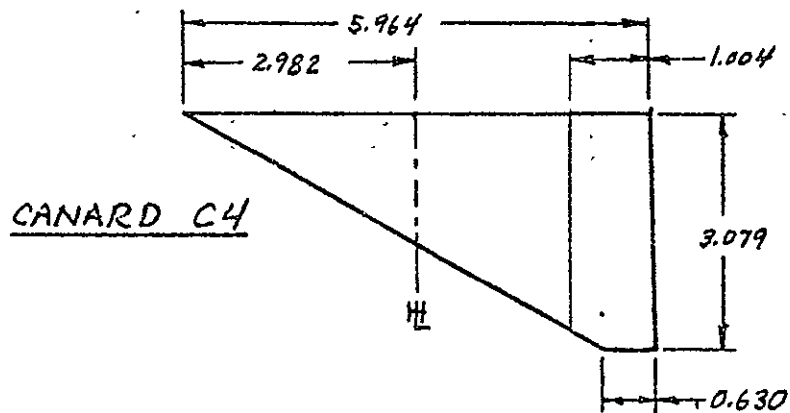


FIGURE 9. VERTICAL TAIL V.7.



NACELLES E₃₄

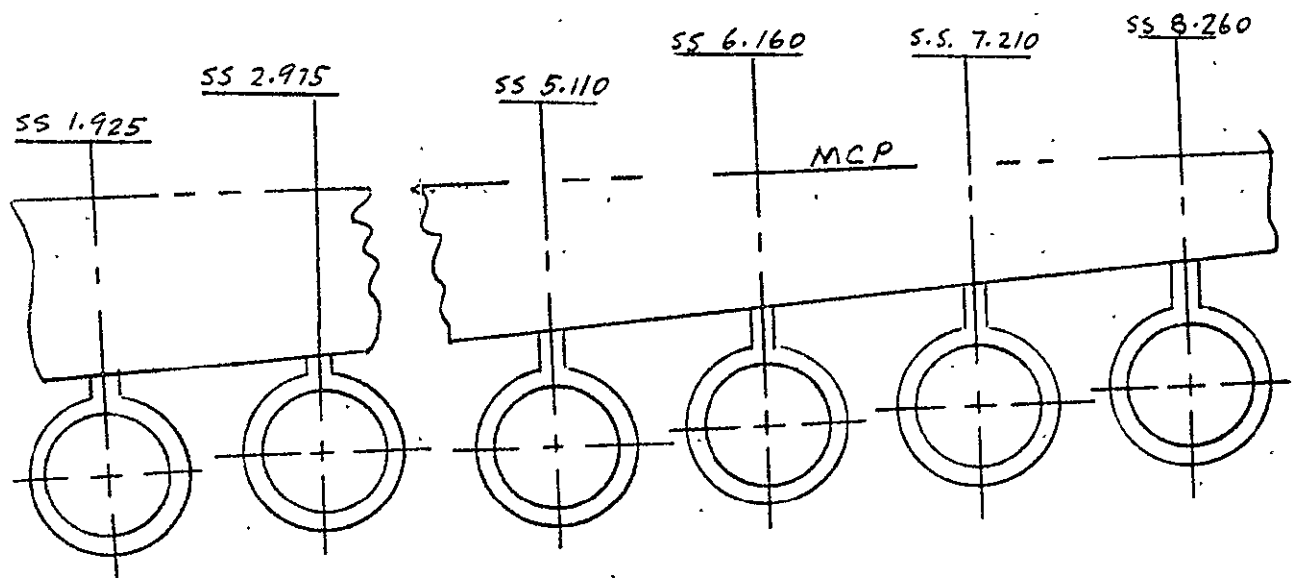
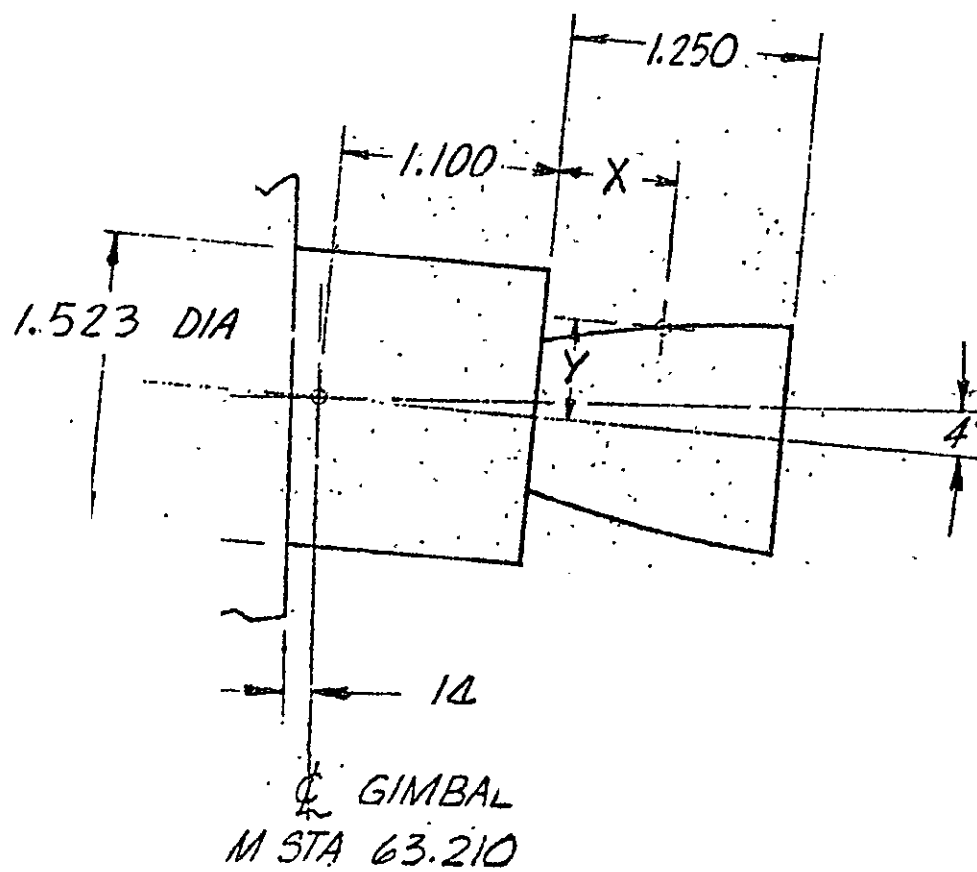


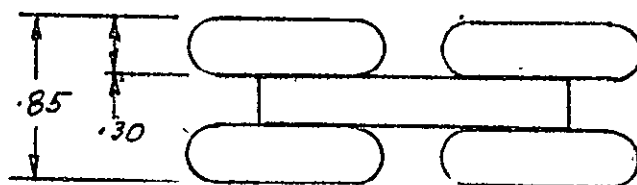
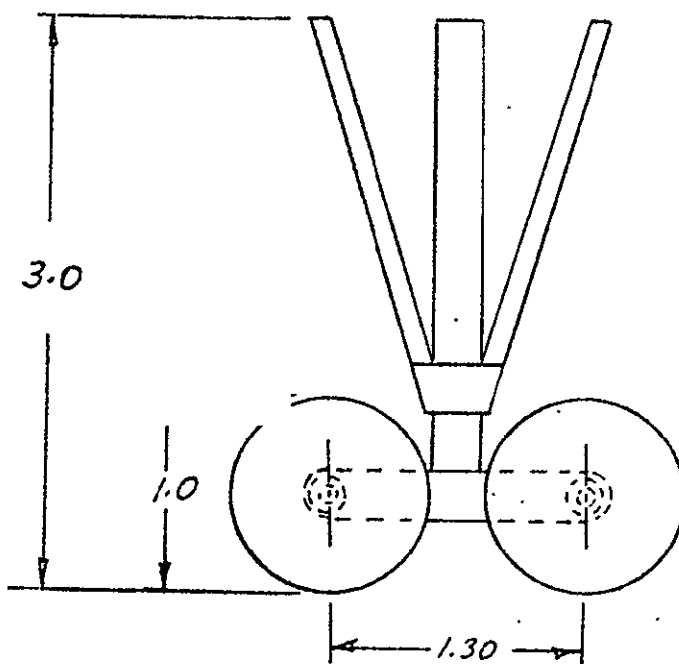
FIGURE 10. CANARD C4 AND NACELLES E₃₄



X	Y
.000	.387
.200	.442
.400	.483
.600	.514
.800	.538
1.000	.560
1.200	.579
1.250	.583

FIGURE II. ROCKETS R_1

MAIN
GEAR (2)



WHEEL DOOR

FS 23.462

WL 18.110

NOSE
GEAR

WL 16.257

2.5

18°

35

.57

1.0

.75

FIGURE 12. GEAR ~ G₃

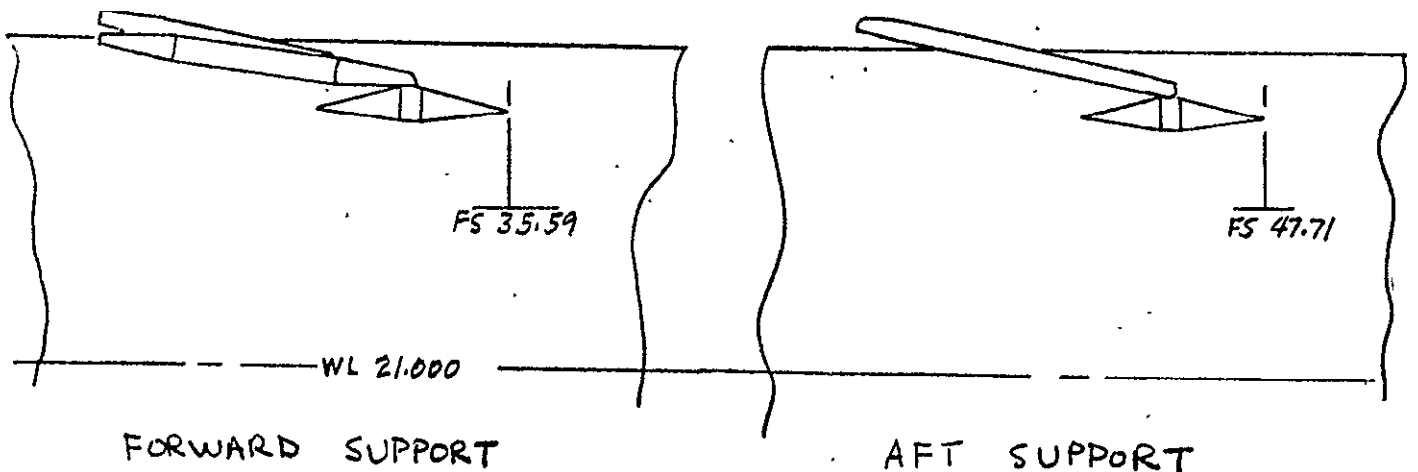
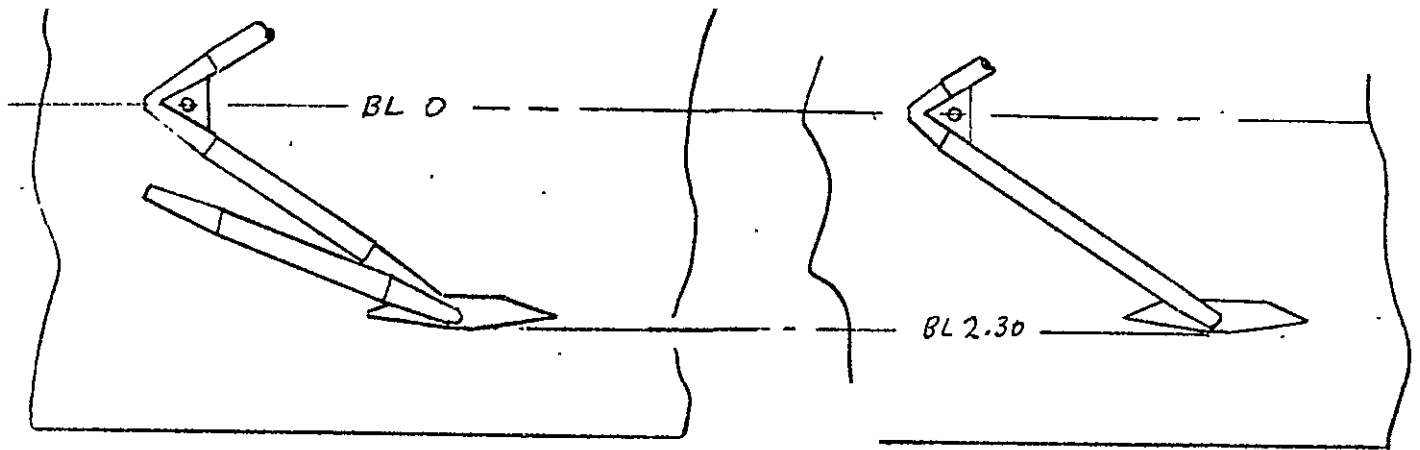


FIGURE 13. L_1 ~ ORBITER ATTACHMENT STRUTS

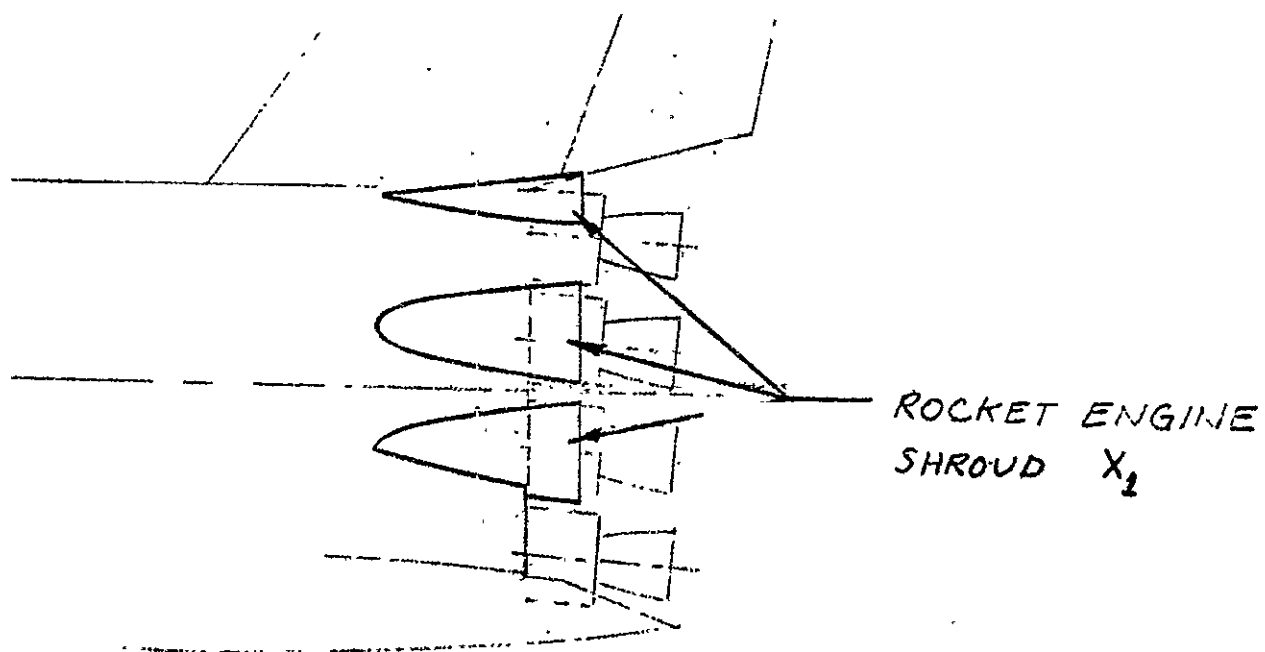


FIGURE 14. ROCKET ENGINE SHROUD X1

ORIFICE NUMBER	LOCATION		ORIFICE NAME
	W. L.	B. L.	
1	22,894	1,894	B P 1
2	23,673	0,000	B P 2
3	20,940	2,678	B P 3
4	19,106	1,894	B P 4
5	18,322	0,000	B P 5
6	17,995	2,678	B P 6
7	20,940	1,785	R P 7

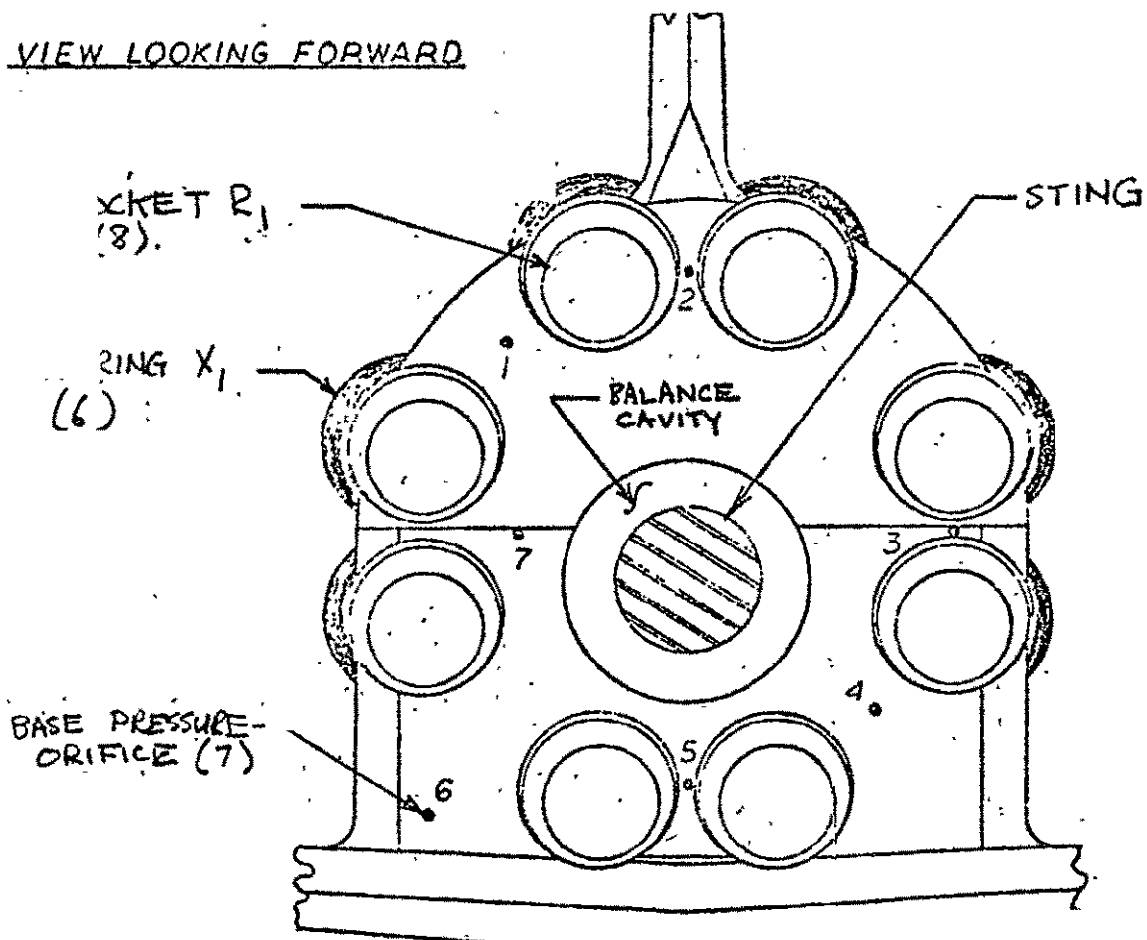


FIGURE 15. BASE REGION SHOWING COMPONENTS.

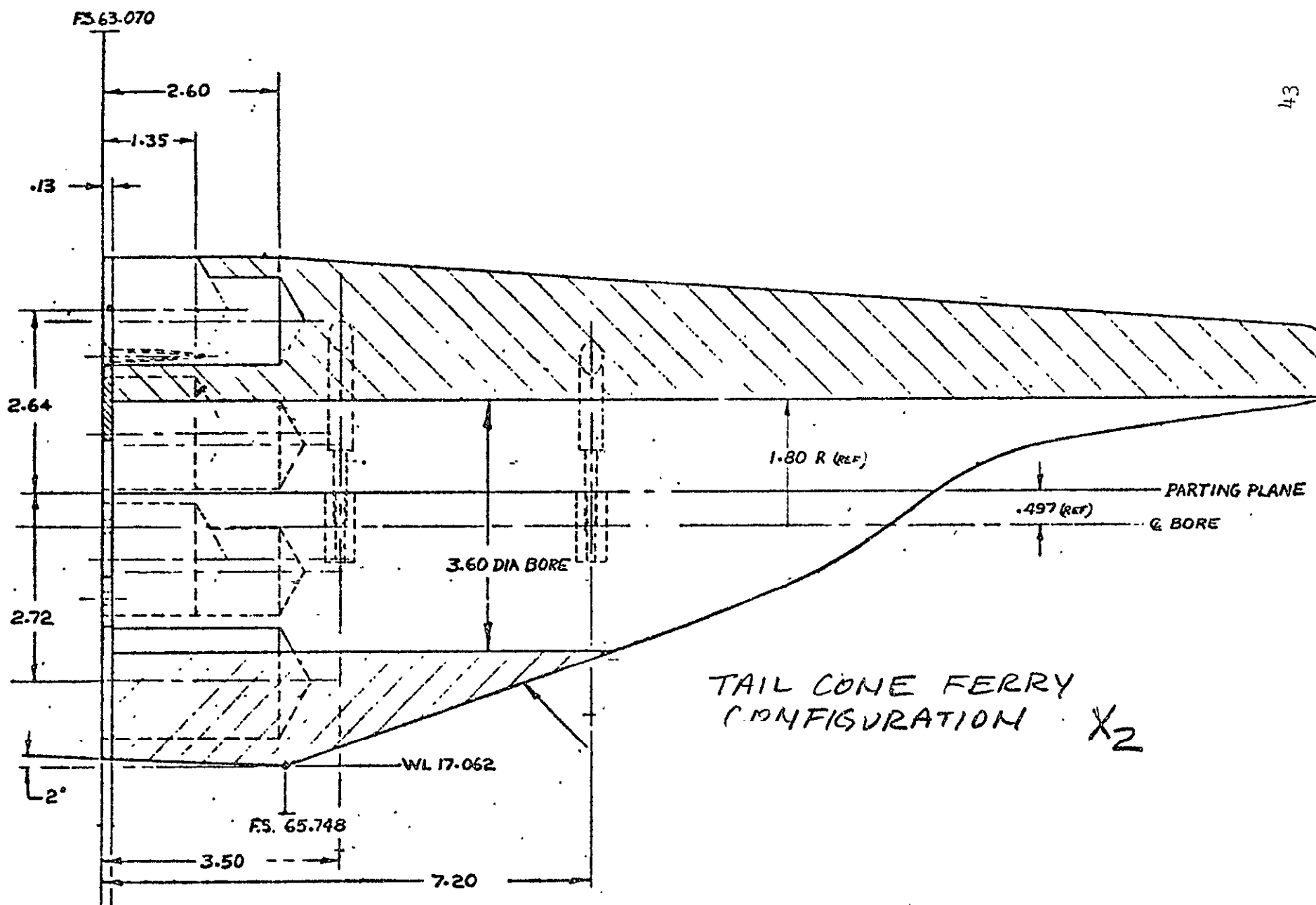


FIGURE 16. TAIL CONE FERRY CONFIGURATION X2

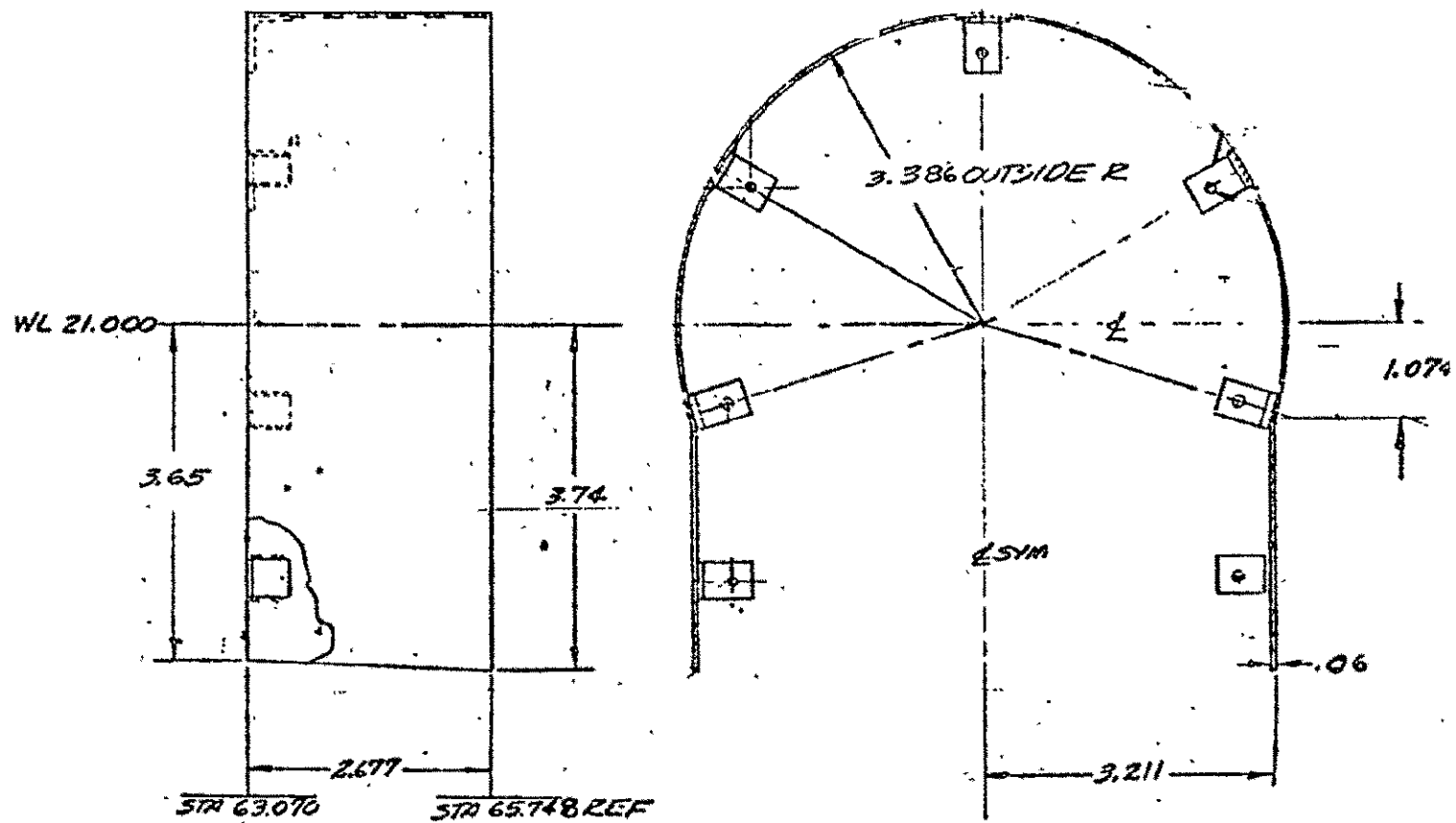


FIGURE 17. AFT SECTION SHROUD ~ X.

TABLE IV

MODEL COMPONENT: BODY - B19, B21

GENERAL DESCRIPTION: B19 is the basic body for the B-15B delta wing
configuration. B21 is same body with a larger canard fairing for
B-15B-1.

DRAWING NUMBER: FW ZA-213

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length (to T.E. of wing W10)	<u>229.7 ft</u>	<u>48.248 in</u>
Max. Width	<u>32.25 ft</u>	<u>6.772 in</u>
Max. Depth (F.S. 57-823)	<u>37.49 ft</u>	<u>7.873 in</u>
Fineness Ratio	<u>6.13</u>	<u>6.13</u>
Area		
* Max. Cross-Sectional (F S. 57.823)	<u>1059 sq.ft.</u>	<u>46.7 sq. in</u>
Planform	<u>6773 sq.ft.</u>	<u>298.7 sq. in</u>
Wetted	<u> </u>	<u> </u>
Base	<u>998 sq. ft.</u>	<u>44.011 sq. in.</u>

* Wing off fairing

MODEL COMPONENT: WING W10 (SEE FIGURE 6)

GENERAL DESCRIPTION: Basic symmetric delta wing with sharp wing tips, split elevons and has a total of 4714 ft² full scale exposed area.

DRAWING NUMBER: ZW-213 (sheet 4)

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area

Planform

7797 sq.ft.

343.8 sq.in.

Wetted

Span (equivalent)

145 Ft

30.44 in.

Aspect Ratio

2.35

2.35

Rate of Taper

0

0

Taper Ratio

3°

3°

Diehedral Angle, degrees

2°

2°

Incidence Angle, degrees

Aerodynamic Twist, degrees

Toe-In Angle

Cant Angle

Sweep Back Angles, degrees

Leading Edge

53°

53°

Trailing Edge

-8.95°

-8.95°

0.25 Element Line

44°

44°

Chords:

Root (Wing Sta! 0.0)

107.6 Ft.

22.593 in.

Tip, (equivalent)

1.50 Ft

~0

MAC

71.71 Ft

15.062 in.

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section

NACA0010-64

NACA0010-64

Root

Tip

EXPOSED DATA

Area

4714 sq. ft.

208.0 sq.in.

Span, (equivalent)

109 Ft

22.980 in.

Aspect Ratio

2.62

2.62

Taper Ratio

0

0

Chords

Root

83.6 Ft

17.567 in.

Tip

1.50 Ft

~0

MAC

55.74 Ft.

11.705 in.

Fus. Sta. of .25 MAC

L.P. of .25 MAC

B.L. of .25 MAC

TABLE VI

MODEL COMPONENT: Wing W14 (SEE FIGURE 7)GENERAL DESCRIPTION: Clipped delta wing with 4° twist starting outboard
of S.S. 340.466.

DRAWING NUMBER:

WT-71-105120 (St.12)DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area		
Planform	<u>8623 sq.ft</u>	<u>380.3 sq.in.</u>
Wetted		
Span (equivalent)	<u>1739.4 in</u>	<u>30.440 in</u>
Aspect Ratio	<u>2.437</u>	<u>2.437</u>
Rate of Taper		
Taper Ratio	<u>0.1059</u>	<u>0.1059</u>
Dihedral Angle, degrees	<u>3°</u>	<u>3°</u>
Incidence Angle, degrees	<u>2°</u>	<u>2°</u>
Aerodynamic Twist, degrees (Part)	<u>4°</u>	<u>4°</u>
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	<u>53°</u>	<u>53°</u>
Trailing Edge	<u>0°</u>	<u>0°</u>
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	<u>1291.0 in</u>	<u>22.593 in</u>
Tip, (equivalent)	<u>136.863 in</u>	<u>2.394 in</u>
MAC	<u>869.4 in</u>	<u>15.215 in</u>
Fus. Sta. of .25 MAC	<u>3104</u>	<u>54.337</u>
W.P. of .25 MAC	<u>1173</u>	<u>22.052</u>
B.L. of .25 MAC	<u>527.8</u>	<u>9.237</u>
Airfoil Section		
Root	<u>NACA 0010-64</u>	
Tip		
<u>POSED DATA</u>		

Area	<u>5218 sq.ft</u>	<u>230.2 sq.in</u>
Span, (equivalent)	<u>1313 in</u>	<u>22.980 in</u>
Aspect Ratio	<u>2.294</u>	<u>2.294</u>
Taper Ratio	<u>0.1360</u>	<u>0.1360</u>
Chords		
Root	<u>1007.5 in</u>	<u>17.643 in</u>
Tip	<u>136.863 in</u>	<u>2.394 in</u>
MAC	<u>682.6 in</u>	<u>11.952 in</u>
Fus. Sta. of .25 MAC	<u>3250</u>	<u>56.884</u>
W.P. of .25 MAC	<u>1255</u>	<u>21.965</u>
B.L. of .25 MAC	<u>406.8</u>	<u>7.125</u>

TABLE VII

MODEL COMPONENT DATA-WINGS
(SEE FIGURE 8)

Model wings denoted W15, W16, and W18 all have the same geometric data with the following descriptions denoting the differences:

<u>Wing</u>	<u>Description</u>
W15	Clipped delta wing with conical camber (mean chamber line designed for a C_L of 0.215) Ref. Dwg: WT-71-105125.
W16	Clipped delta wing with conical camber (mean chamber line designed for C_L of 0.350). Ref. Dwg: WT-71-105126.
W18	Clipped delta wing with symmetric airfoil. Ref. Dwg: FWO ZW-213, sheet 16.

TABLE VII
(Continued)

MODEL COMPONENT: Wing: W15, W16, W18 (SEE FIGURE 8)

GENERAL DESCRIPTION: _____

DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area		
Planform	8623 sq. ft	380.3 sq. in
Wetted		
Span (equivalent):	1739.4 in	30.440 in
Aspect Ratio	2.437	2.437
Rate of Taper		
Taper Ratio	0.1059	0.1059
Diehedral Angle, degrees	3°	3°
Incidence Angle, degrees	2°	2°
Aerodynamic Twist, degrees	0°	0°
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	53°	53°
Trailing Edge	0°	0°
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	1291.0 in	22.593 in
Tip, (equivalent)	136.863 in	2.394 in
MAC	869.4 in	15.215 in
Fus. Sta. of .25 MAC	3104	54.337
W.P. of .25 MAC	1173	22.052
B.L. of .25 MAC	527.8	9.237
Airfoil Section		
Root	NACA 0010-64	
Tip		
<u>EXPOSED DATA</u>		
Area	5218 sq.ft	230.2 sq.in.
Span, (equivalent)	1313 in	22.980 in
Aspect Ratio	2.294	2.298
Taper Ratio	0.1360	0.1360
Chords		
Root	1007.5 in	17.643 in
Tip	136.863 in	2.394 in
MAC	682.6 in	11.952 in
Fus. Sta. of .25 MAC	3250	56.884
W.P. of .25 MAC	1255	21.965
B.L. of .25 MAC	406.8	7.125

TABLE VIII

MODEL COMPONENT: Wing W17 (SEE FIGURE 8)GENERAL DESCRIPTION: Delta wing with a curved and cambered leading edge.DRAWING NUMBER: WT-71-105127

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area		
Planform	8490 sq.ft.	374.40 sq.in
Wetted		
Span (equivalent)	1739.4 in	30.440 in
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Dihedral Angle, degrees	0.0	0.0
Incidence Angle, degrees	3°	3°
Aerodynamic Twist, degrees	2°	2°
Toe-In Angle	0°	0°
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge (up to W.S. 347.88)	53°	53°
Trailing Edge	0°	0°
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	1291.0	22.593 in
Tip, (equivalent)	0.0	0.0
MAC	879.2 in	15.386 in
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root	NACA 0010-64	
Tip		
<u>EXPOSED DATA</u>		
Area	5070 sq.ft	223.5 sq.in
Span, (equivalent)	1313 in	22.980 in
Aspect Ratio		
Taper Ratio	0.0	0.0
Chords		
Root	1007.5 in	17.643 in
Tip	0.0	0.0
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE IX

MODEL COMPONENT: VERTICAL TAIL V7 (SEE FIGURE 9.)GENERAL DESCRIPTION: Basic vertical tail of airfoil section NACA0012-64(MOD)

DRAWING NUMBER: ZV-213 (sheet 2)

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>1228 sq. ft.</u>	<u>54.156 sq.in.</u>
Span (equivalent)	<u>40.42 ft.</u>	<u>8.488 in.</u>
Inb'd equivalent chord	<u>42.0 ft.</u>	<u>8.820 in.</u>
Outb'd equivalent chord	<u>20.89 ft.</u>	<u>4.386 in.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>14.7 ft.</u>	<u>3.087 in.</u>
At Outb'd equiv. chord	<u>8.05 ft.</u>	<u>1.690 in.</u>
Sweep Back Angles, degrees		
Leading Edge	<u>35°</u>	<u>35°</u>
Trailing Edge	<u>10°</u>	<u>10°</u>
Hingeline	<u>20°</u>	<u>20°</u>
Area Moment (Normal to hinge line)	<u> </u>	<u> </u>

TABLE X

MODEL COMPONENT: CANARD C4 (SEE FIGURE 10)GENERAL DESCRIPTION: Basic Delta Canard with 460 ft² (two canards) of full
scale exposed area (10% of wing W13). Airfoil NACA0014-(6.6)(5)DRAWING NUMBER: ZW-213 sheet 3

<u>DIMENSIONS:</u> (per canard)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>230 sq.ft.</u>	<u>10.152 sq.in.</u>
Span (equivalent)	<u>14.66 ft.</u>	<u>3.079 in.</u>
Inb'd equivalent chord	<u>28.40 ft.</u>	<u>5.964 in.</u>
Outb'd equivalent chord	<u>3.0 ft.</u>	<u>0.630 in.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>4.78 ft.</u>	<u>1.004 in.</u>
At Outb'd equiv. chord	<u> </u>	<u> </u>
Sweep Back Angles, degrees		
Leading Edge	<u>60°</u>	<u>60°</u>
Tailing Edge	<u>0°</u>	<u>0°</u>
Hingeline	<u>0°</u>	<u>0°</u>
Area Moment (Normal to hinge line)	<u> </u>	<u> </u>

TABLE XI

MODEL COMPONENT: ENGINE E34 (SEE FIGURE 10)

GENERAL DESCRIPTION: Basic fly-back engines individually suspended under the wing and body. Eight engines are located under wings W10 and W13, with four more located under the body. Through airflow is allowed.
The engines under the wing are swept back 20 degrees.

DRAWING NUMBER: ZN-213 (sheet 2, 7 and 8)

<u>DIMENSIONS:</u>	<u>(per engine without pylons)</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length			<u>2.555 in.</u>
Max. Width			<u>0.805 in.</u>
Max. Depth			<u>0.805 in.</u>
Fineness Ratio			<u>3.17</u>
Area			
Max. Cross-Sectional			<u>0.509 sq.in</u>
Planform			<u>2.056 sq.in</u>
Wetted			
Base			

TABLE XII

MODEL COMPONENT: ROCKET ENGINES RL (SEE FIGURE 11)

GENERAL DESCRIPTION: A total of eight are located on outside ring of base plate. Dimensions given are for exposed model combustion chamber and nozzle.

DRAWING NUMBER: ZN-213 (sheet 4)

<u>DIMENSIONS:</u> (per rocket engine)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	_____	<u>2.437 in.</u>
Max. Width (radius)	_____	<u>0.762 in.</u>
Max. Depth (radius)	_____	<u>0.762 in.</u>
Fineness Ratio	_____	_____
Area		
Max. Cross-Sectional	_____	<u>0.456 sq.in.</u>
Planform	_____	<u>3.102 sq.in.</u>
Wetted	_____	_____
Base	_____	_____

NOMENCLATURE

(General)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
α	ALPHA	angle of attack, angle between the projection of the wind X_w -axis on the body X, Z-plane and the body X-axis; degrees
β	BETA	sideslip angle, angle between the wind X_w -axis and the projection of this axis on the body X-Z-plane; degrees
ψ	PSI	yaw angle, angle of rotation about the body Z-axis, positive when the positive X-axis is rotated toward the positive Y-axis; degrees
ϕ	PHI	roll angle, angle of rotation about the body X-axis, positive when the positive Y-axis is rotated toward the positive Z-axis; degrees
ρ		air density; K_g/m^3 , slugs/ft ³
a		speed of sound; m/sec, ft/sec
V		Speed of vehicle relative to surrounding atmosphere; m/sec, ft/sec
q	$Q(PSI)$ $Q(Psf)$	dynamic pressure; $1/2\rho V^2$, psi, psf
M	MACH	Mach number; V/a
RN/L	RN/L	Reynolds number per unit length; million/ft
p		static pressure; psi
P		total pressure; psi
C_p	CP	pressure coefficient; $(p-p_\infty)/q$

NOMENCLATURE (Continued)
Reference & C. G. Definitions

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
S		wing area; m^2 , ft^2
S	SREF	reference area; m^2 , ft^2
\bar{c}		wing mean aerodynamic chord or reference chord; m, ft, in (see l_{ref} or LREF)
l_{ref}	LREF	reference length; m, ft, in.; (see \bar{c})
b_{ref}	BREF	wing span or reference span; m, ft, in
A_b		base area; m^2 , ft^2 , in^2
c. g.		center of gravity
MRP	MRP	abbreviation for moment reference point
	XMRP	abbreviation for moment reference point on X-axis
	YMRP	abbreviation for moment reference point on Y-axis
	ZMRP	abbreviation for moment reference point on Z-axis

NOMENCLATURE (Continued)

Axis System General

SYMBOL

DEFINITION

F

force; F, lbs

M

moment; M, in-lb

Subscript

Definition

N

normal force

A

axial force

L

lift force

D

drag force

Y

force or moment about the Y axis

Z

moment about the Z axis

X

moment about the X axis

s

stability axis system

w

wind axis system

re:

reference conditions

∞

free stream conditions

t

total conditions

b

base

NOMENCLATURE (Continued)
Body & Stability Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
<u>Body Axis System</u>		
C_N	CN	normal force coefficient; F_N/qS
C_A	CA	axial force coefficient; F_A/qS
C_{A_i}	CAB	base axial force coefficient; $\left[\begin{smallmatrix} -1 \\ -1 \end{smallmatrix} \right] \left[\frac{(P_b - p_\infty)}{q} \right] (A_b/S)$
C_{A_f}	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
C_n	CYN	yawing moment coefficient; $M_Z/qS b_{ref}$
C_ℓ	CBL	rolling moment coefficient; $M_X/qS b_{ref}$
<u>Common to Both Axis Systems</u>		
C_m	CLM	pitching moment coefficient; $M_Y/qS \ell_{ref}$
C_y	CY	side force coefficient; F_Y/qS
<u>Stability Axis System</u>		
C_L	CL	lift force coefficient; F_L/qS
C_D	CD	drag force coefficient; F_D/qS
C_{D_b}	CDB	base drag coefficient
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_n	CLN	yawing moment coefficient; $M_{Z,s}/qS b_{ref}$
C_ℓ	CSL	rolling moment coefficient; $M_{X,s}/qS b_{ref}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

ADDITION TO THE STANDARD SADSAC NOMENCLATURE
FOR TEST GD/C - 587-1

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$\delta_{e_{XY}}$	DEXY	Deflection angle of elevons in degrees positive trailing edge down based upon notation: X = L left side X = R right side Y = ϕ outboard elevon X = I inboard elevon
δ_{C_X}	DCX	Canard deflection angle in degrees positive trailing edge down, based upon notation: X = L left canard X = R right canard
$\delta_{C_{XF}}$	DCXF	Canard flap deflection angle, positive trailing edge down, based upon notation: X = L left canard flap X = R right canard flap
δ_E	ELEVTR DE	Combined elevator deflection in degrees, for split elevons (DEL ϕ + DELI + DERI + DER ϕ)/4 or full span elevons (DEL ϕ + DERI)/2
δ_A	AILR ϕ N DA	Combined aileron deflection in degrees, for split elevons [(DEL ϕ + DELI) - (DERI + DER ϕ)]/4 or for full span elevons, (DELI + DERI)/2
δ_C	CANVTR DC	Combined elevator deflection of canards in degrees (DCL + DCR)/2
δ_{CA}	CANR ϕ N	Combined aileron deflection of canards in degrees (DCL - DCR)/2
δ_{CF}	CFLAPR	Combined canard flap deflections in degrees, (DCLF + DCRF)/2
ω	FLOW WDOT	Nominal total flow rate, lb/sec. Actual total flow rate, lb/sec.

ADDITION TO THE STANDARD SADSAC NOMENCLATURE

FOR TEST GD/C - 587-

(Continued)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
GP	GP	Ground plane
FA	FA	Free air
FS	FS	Flow simulation
C_T	CT	Thrust coefficient

TABULATED DATA LISTING

A tabulated data listing, consisting of all aero data sets, both original and those created in arriving at the plotted material to be presented subsequently, is available as an addendum to this report. The tabular listing is made up in two sections:

- (a) a brief summary list of all data sets containing the identifier, the descriptor, and the resident dependent variables.
- (b) a full list of all data sets containing all resident or selected aerodynamic coefficients of the data sets as well as the above mentioned information.

The listing is currently sent on limited distribution to the following organizations:

NASA AMES	Mr. V. Stevens
NASA MSC	Mr. Ray Nelson
GD/C	Mr. R. Lanflisi

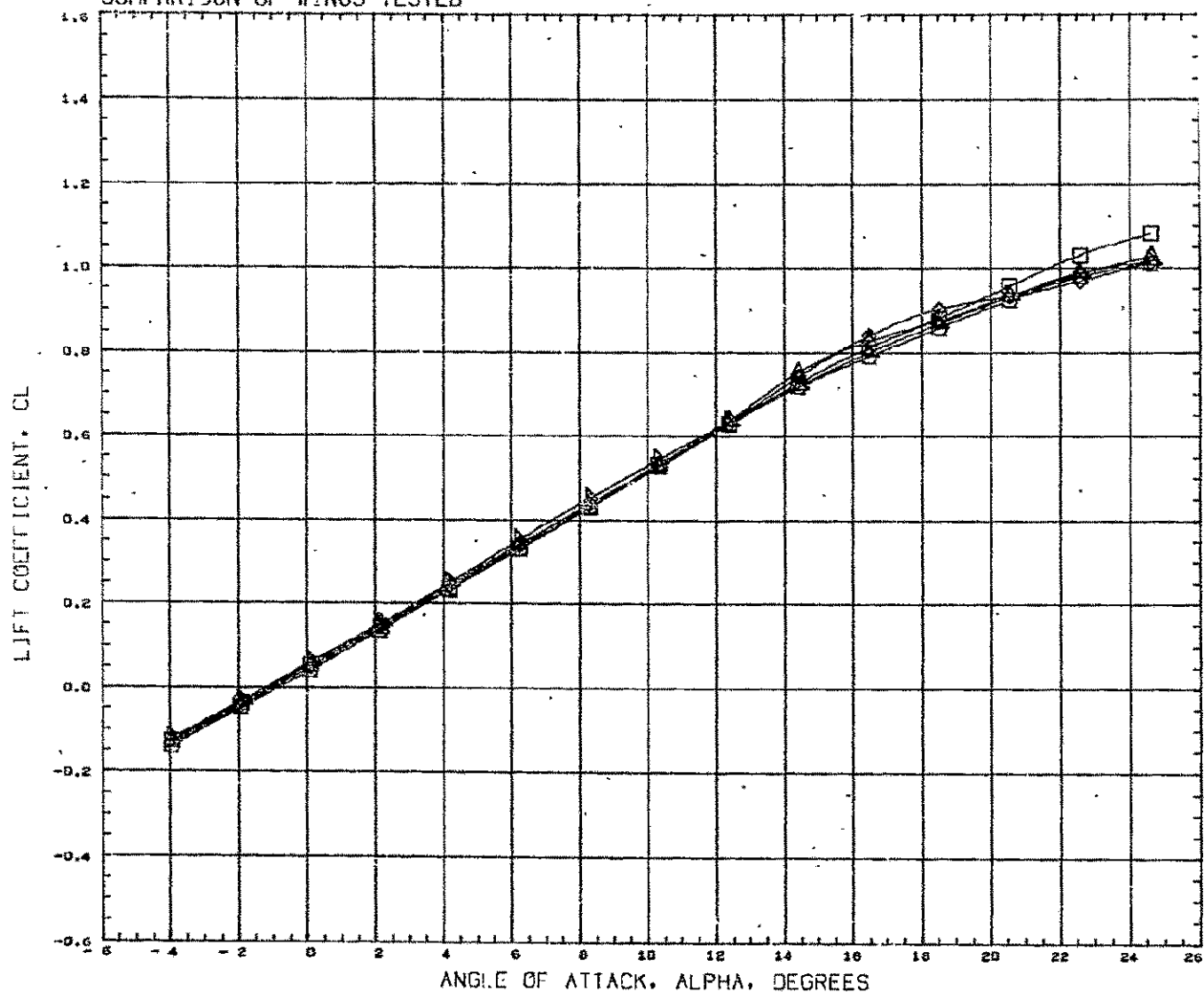
If copies of this listing are desired, please contact the above or the cognizant SADSAC personnel who, for this data, is:

W. R. Morgan
Department 2780
Chrysler Corporation Space Division
New Orleans, La. 70129

(504) 255-2304

PLOTTED DATA

COMPARISON OF WINGS TESTED

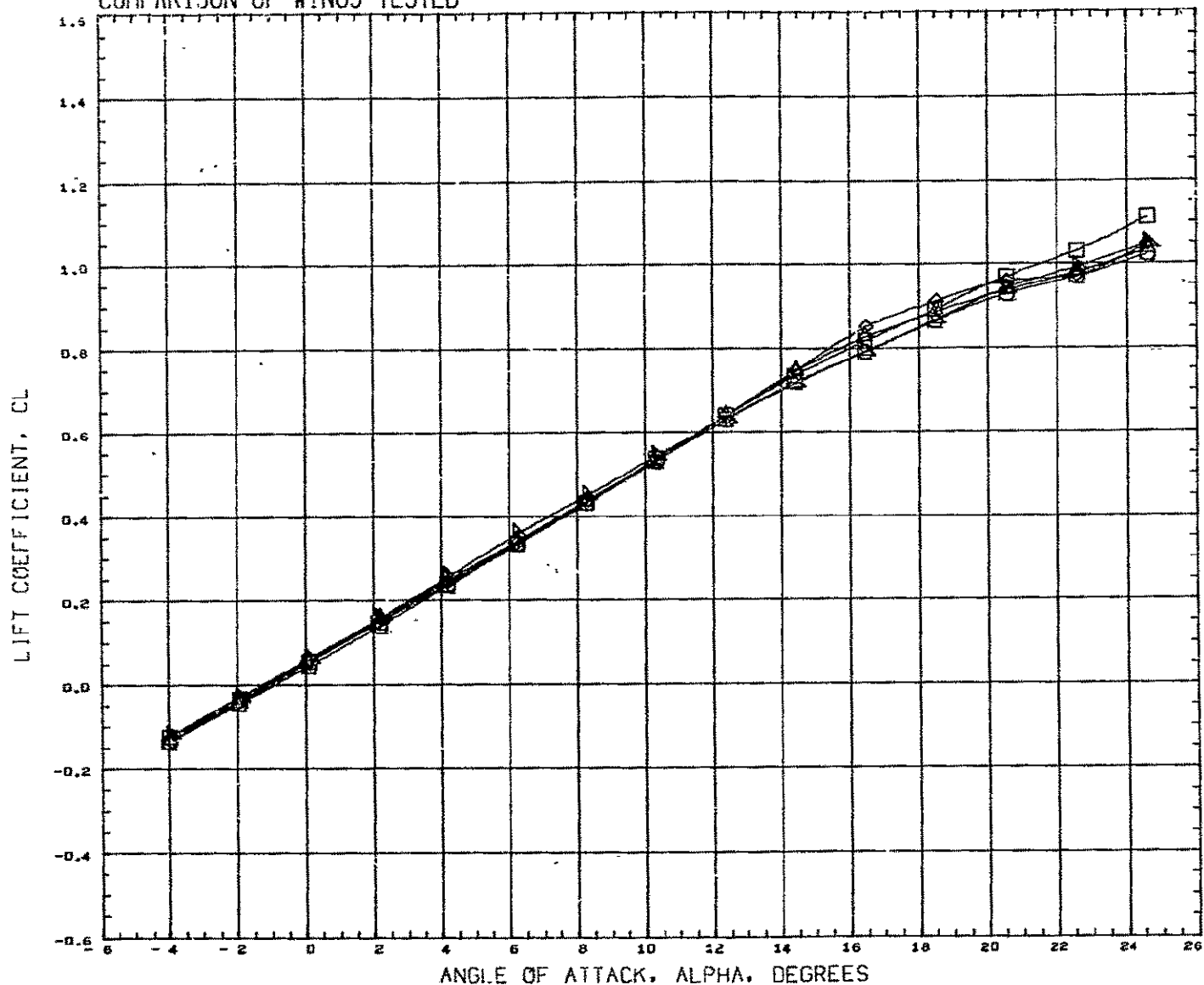


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(ACV004)	GDLST 587-1 B21X1V7C4W16
(ACV006)	GDLST 587-1 B21X1V7C4W17
(ACV005)	GDLST 587-1 B21X1V7C4W18

BETA 0.000

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
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0.000	0.000	0.000	0.000	LREF 15.2156 IN.
0.000	0.000	0.000	0.000	BREF 30.4400 IN.
0.000	0.000	0.000	0.000	XMRP 33.4360 IN.
0.000	0.000	0.000	0.000	YMRP 0.0000 IN.
0.000	0.000	0.000	0.000	ZMRP 3.9380 IN.
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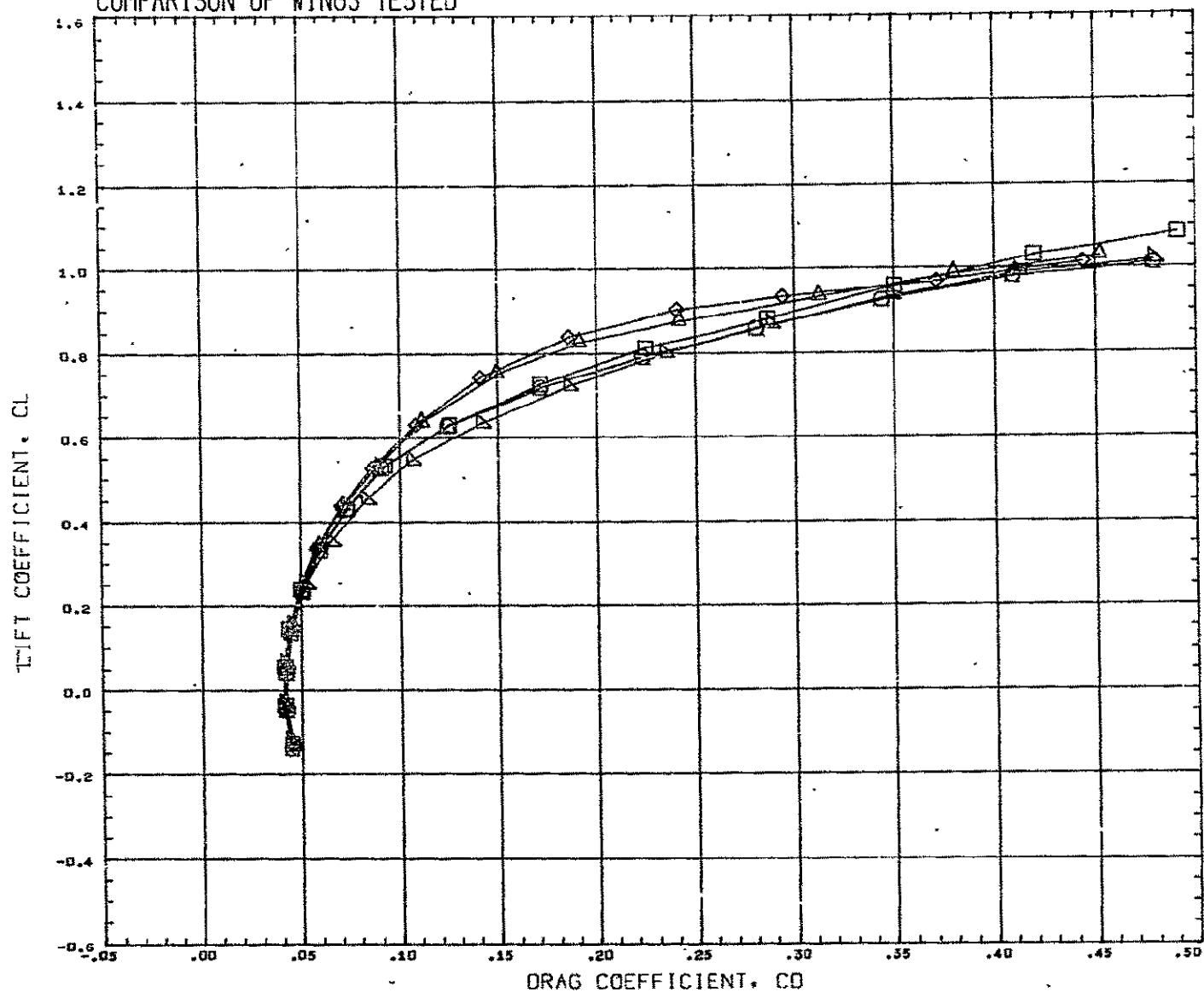
COMPARISON OF WINGS TESTED



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1ACV004	□	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
1ACV006	◇	GDLST 587-1 B21X1V7C4W17	0.000	0.000	0.000	0.000	XMRP	33.4350 IN.
1ACV005	×	GDLST 587-1 B21X1V7C4W18	0.000	0.000	0.000	0.000	YMRP	0.0000 IN.
							ZMRP	3.9380 IN.
							SCALE	0.0175

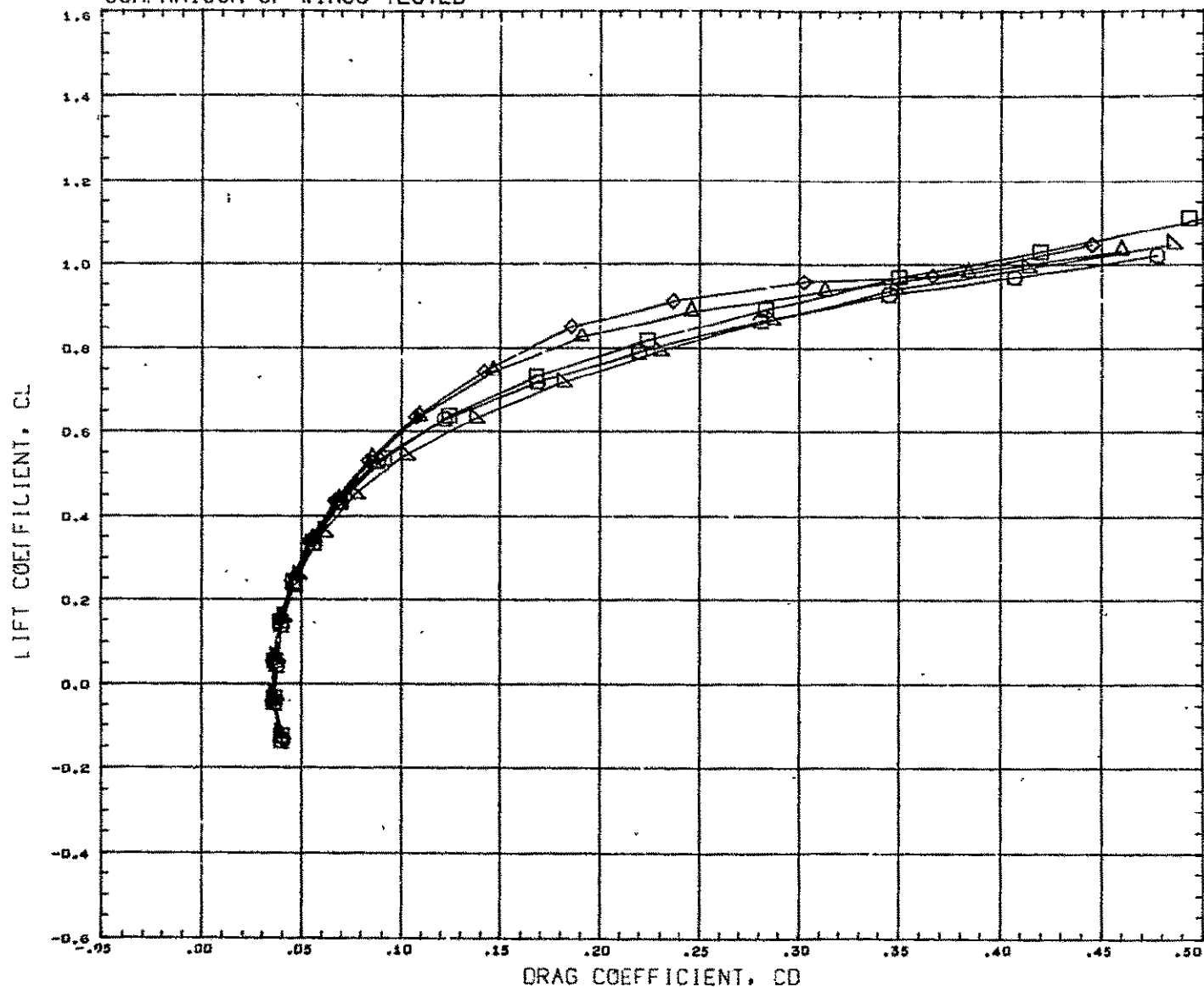
BETA 5.000

COMPARISON OF WINGS TESTED



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(ACV003)	GDLST 587-1 B21X1V7C4W15	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV006)	GDLST 587-1 B21X1V7C4W17	0.000	0.000	0.000	0.000	XHRP	33.4360 IN.
(ACV005)	GDLST 587-1 B21X1V7C4W18	0.000	0.000	0.000	0.000	YHRP	0.0000 IN.
						ZHRP	3.9380 IN.
						SCALE	0.0175
BETA 0.000							

COMPARISON OF WINGS TESTED



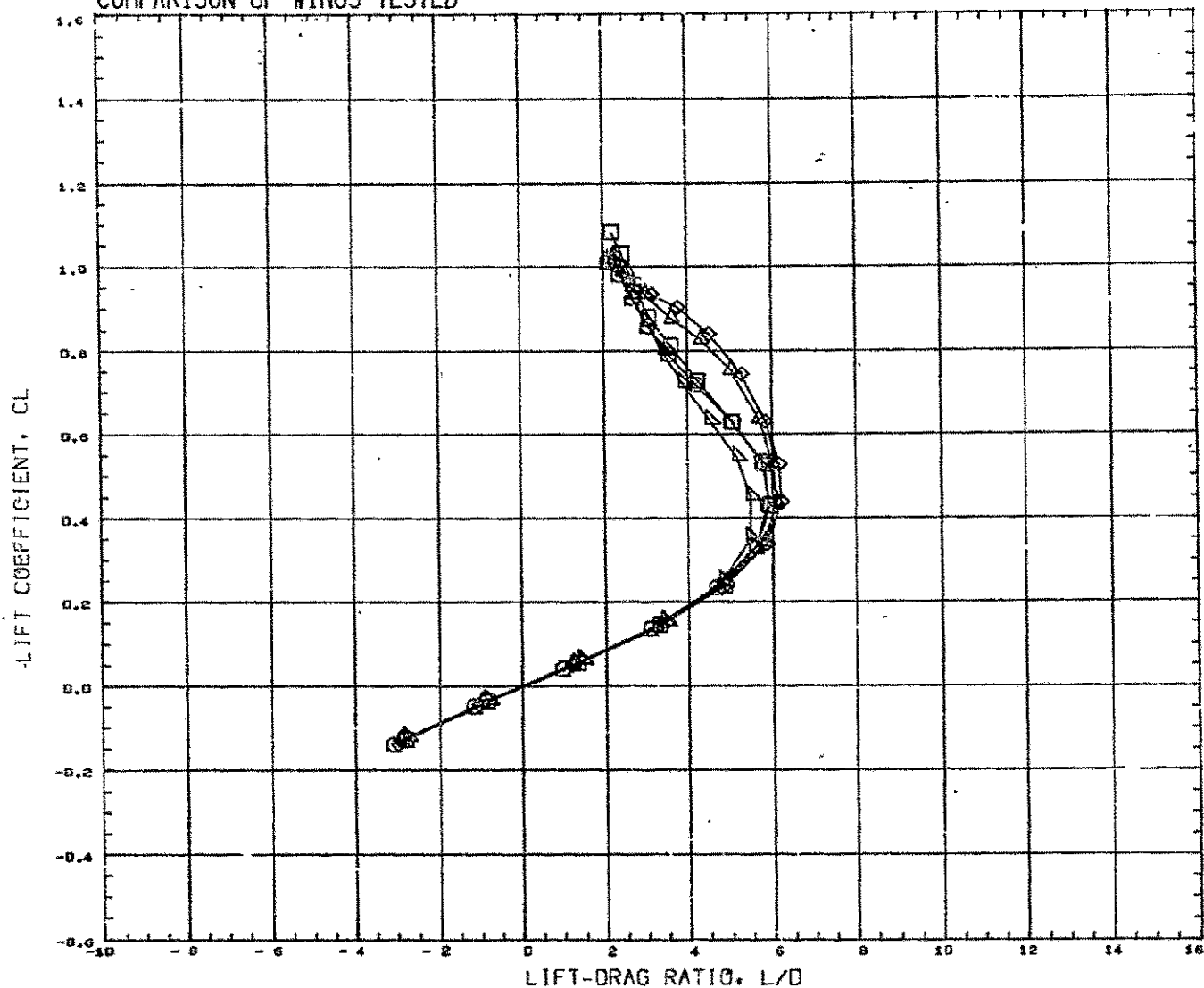
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ACV005	GDLST 587-1	B21X1V7C4W17
ACV006	GDLST 587-1	B21X1V7C4W18

BETA 5.000

DRAG COEFFICIENT, CD

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 380.3004 SG. IN
0.000	0.000	0.000	0.000	LREF 15.270 IN.
0.000	0.000	0.000	0.000	BREF 36.4400 IN.
0.000	0.000	0.000	0.000	XHRP 33.4360 IN.
0.000	0.000	0.000	0.000	YHRP 0.0000 IN.
				ZHRP 3.9380 IN.
				SCALE 0.0175

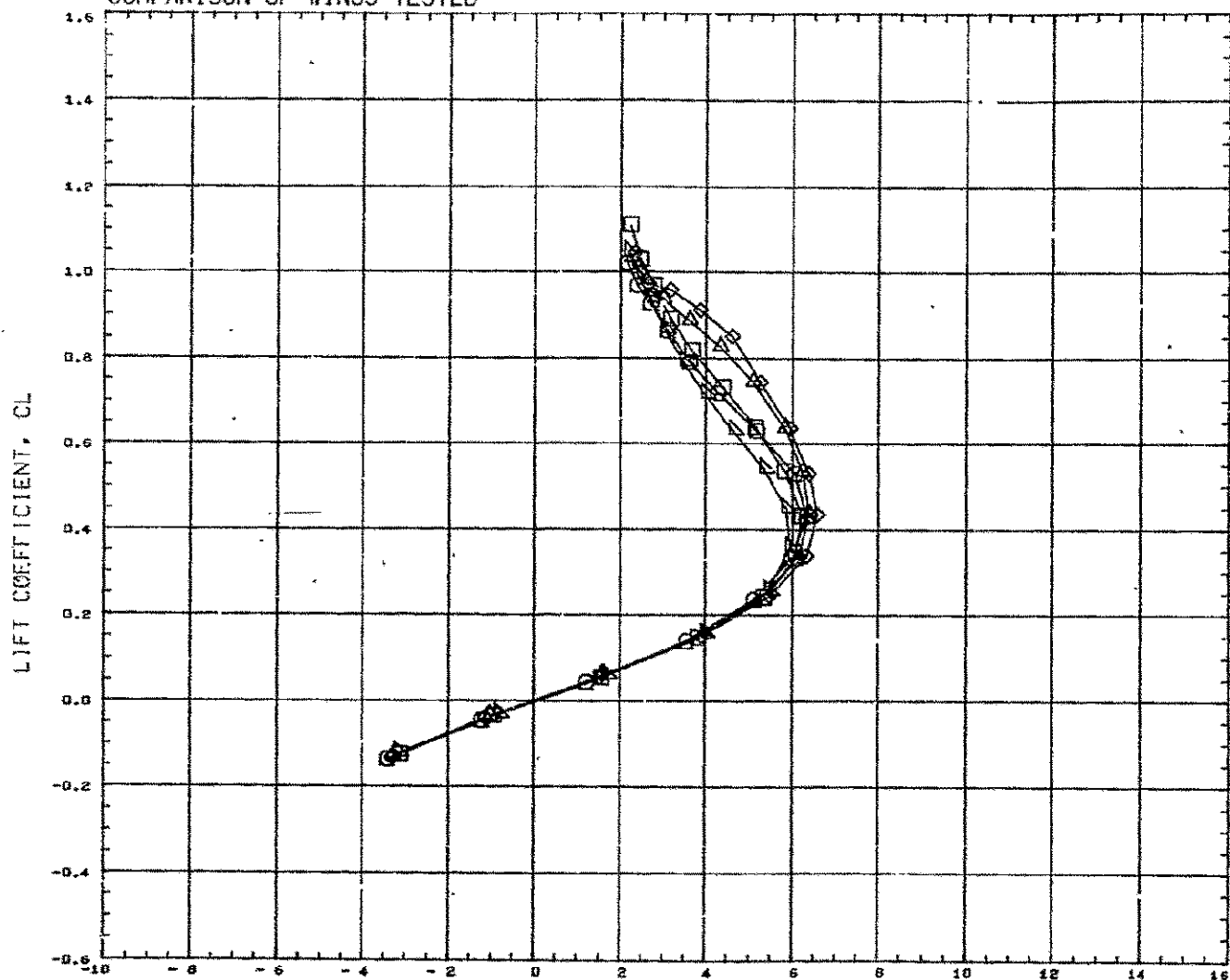
COMPARISON OF WINGS TESTED



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(ACV003)	GDLST 587-1 B21X1V7C4W15	0.000	0.000	0.000	0.000	LREF	15.2152 IN.
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV005)	GDLST 587-1 B21X1V7C4W17	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
(ACV006)	GDLST 587-1 B21X1V7C4W18	0.000	0.000	0.000	0.000	YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

BETA 0.000

COMPARISON OF WINGS TESTED



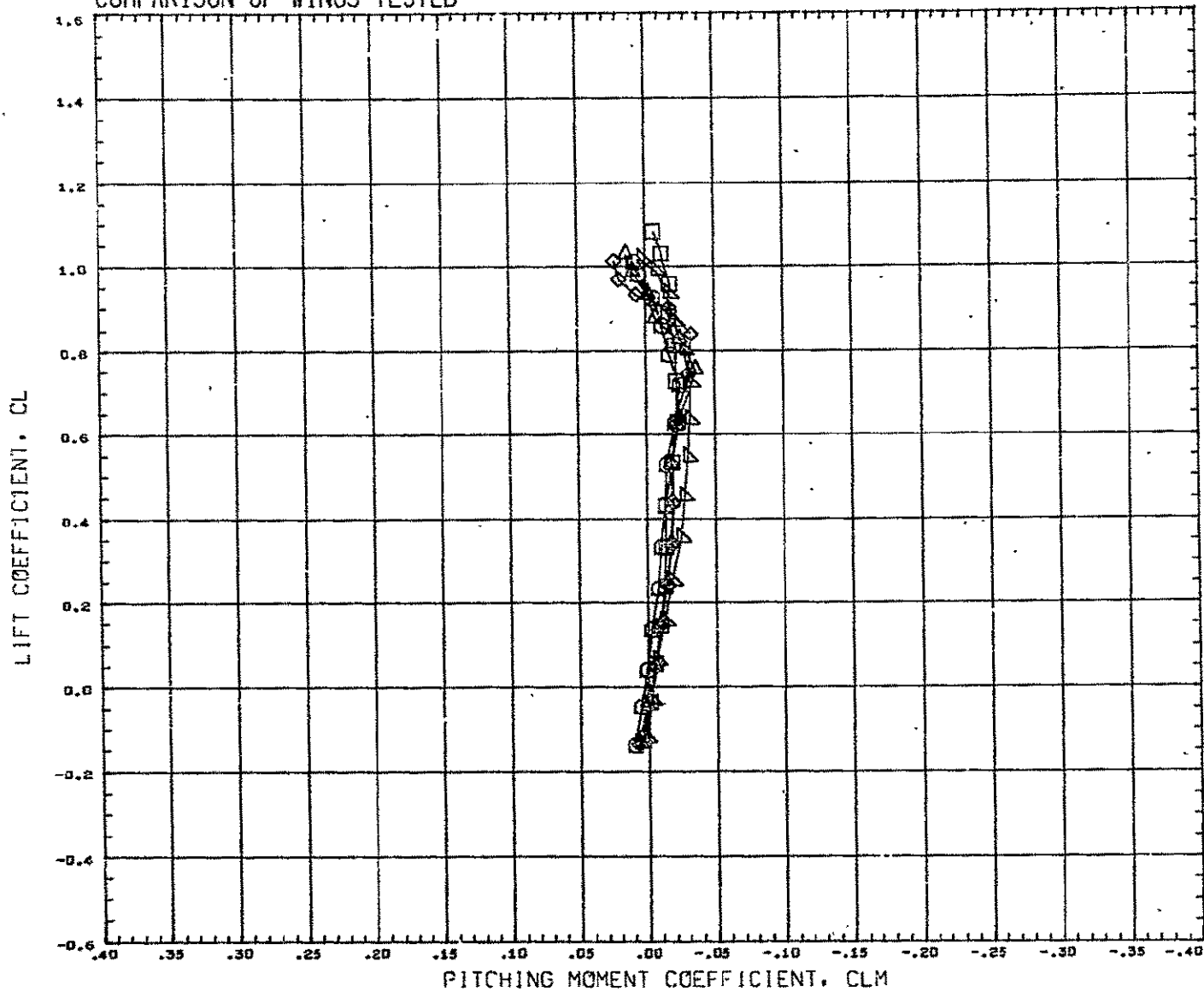
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ACV006	GDLST 507-1 B21X1V7C4W17
ACV005	GDLST 507-1 B21X1V7C4W18

BETA 5.000

LIFT-DRAGE RATIO, L/D

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
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0.000	0.000	0.000	0.000	LREF	15.2153	IN.
0.000	0.000	0.000	0.000	BREF	30.4400	IN.
0.000	0.000	0.000	0.000	XREF	33.4366	IN.
0.000	0.000	0.000	0.000	YREF	0.0000	IN.
0.000	0.000	0.000	0.000	ZREF	3.9380	IN.
0.000	0.000	0.000	0.000	---	0.0175	IN.

COMPARISON OF WINGS TESTED



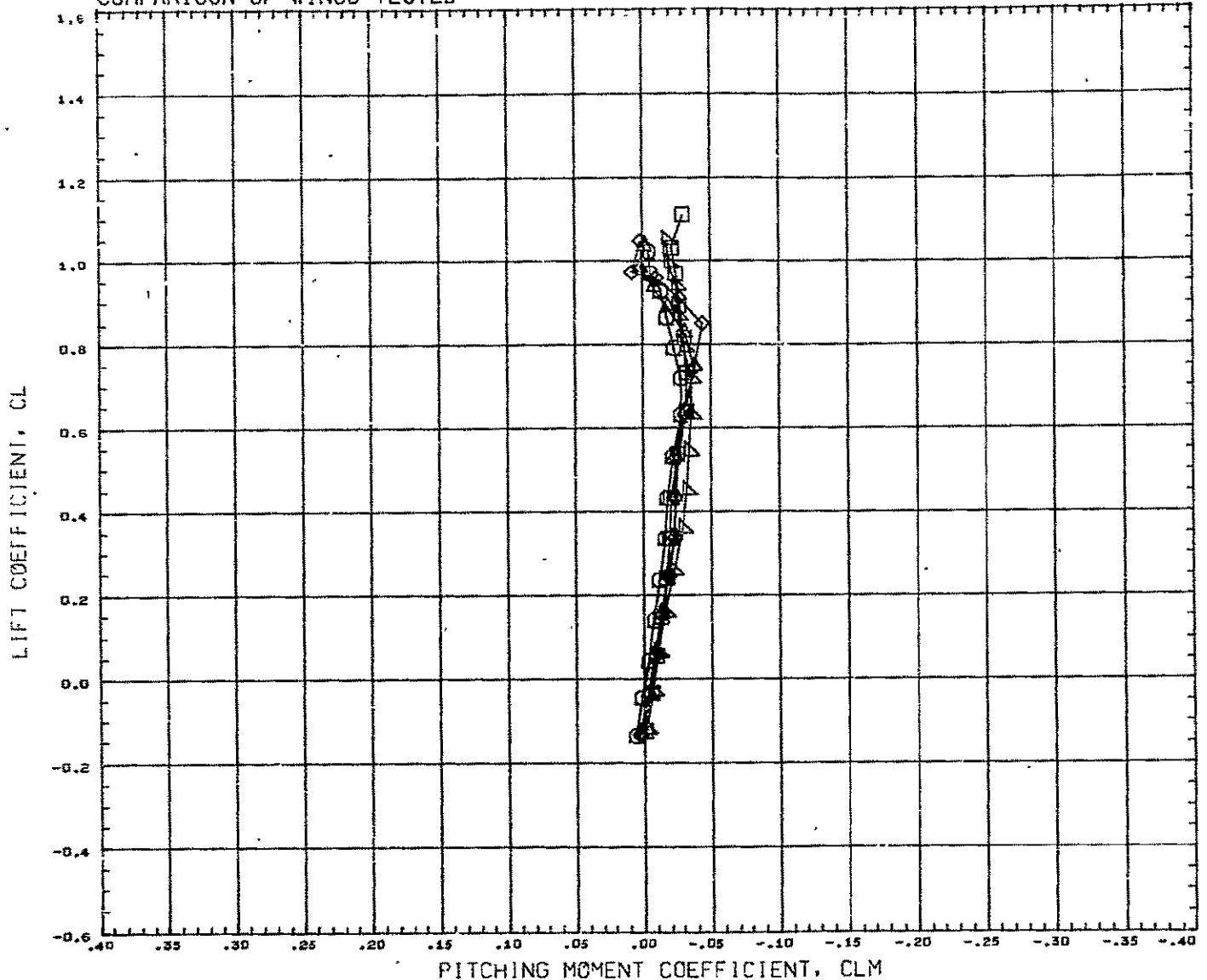
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(ACV006)	GDLST 587-1	B21X1V7C4W17
(ACV005)	GDLST 587-1	B21X1V7C4W18

ELEVTR	AILERON	RUDDER	CANVTR
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION	
SREF	380.3004 SQ. IN
LREF	15.2153 IN.
BREF	30.4408 IN.
XMRP	33.4360 IN.
YMRP	0.0000 IN.
ZMRP	3.9380 IN.
SCALE	0.0175

BETA 0.000

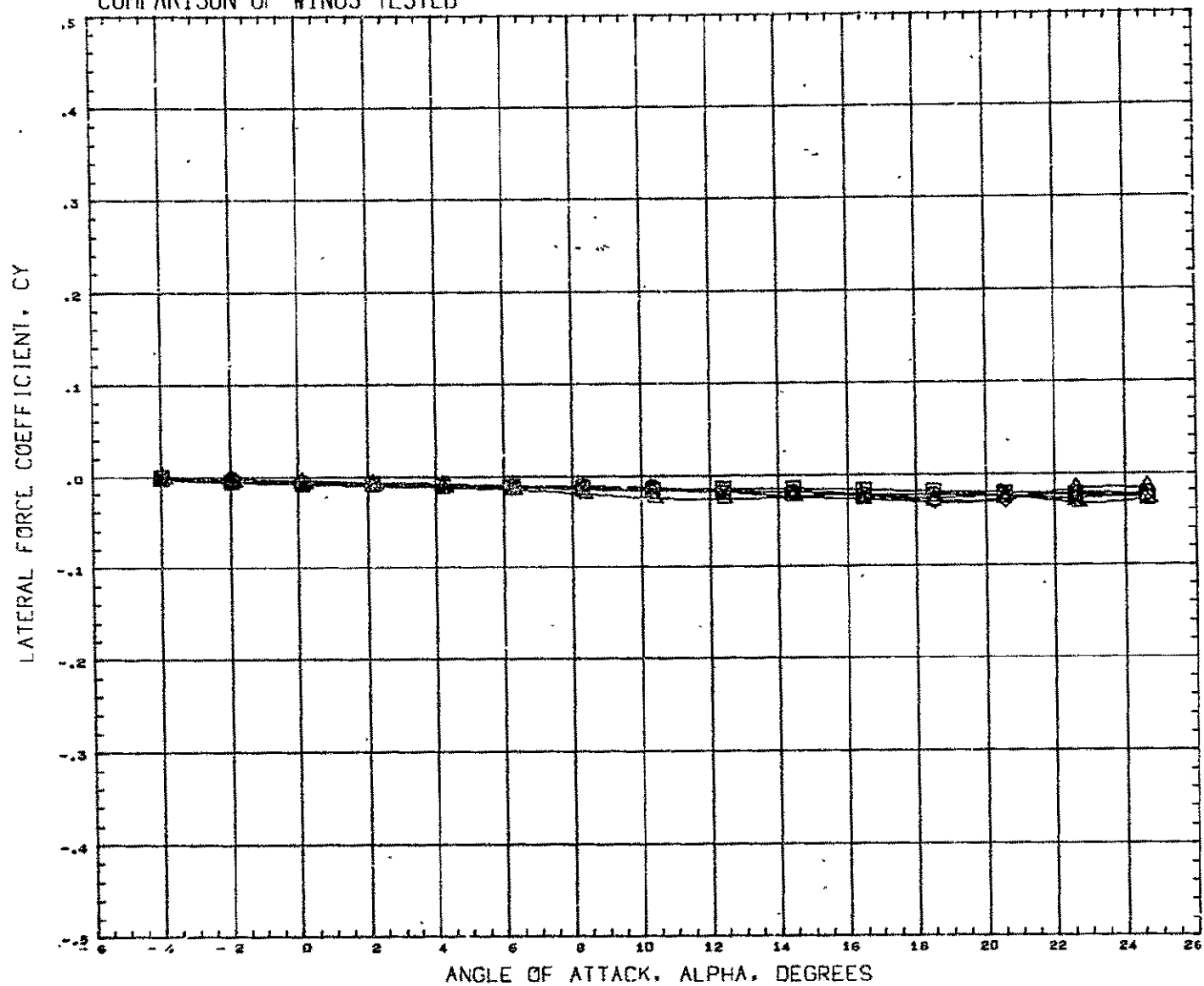
COMPARISON OF WINGS TESTED



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(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	SREF	30.4400 IN.
(ACV005)	GDLST 587-1 B21X1V7C4W17	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
(ACV006)	GDLST 587-1 B21X1V7C4W18	0.000	0.000	0.000	0.000	YMRP	0.0000 IN.
						ZMRP	9.9380 IN.
						SCALE	0.0175

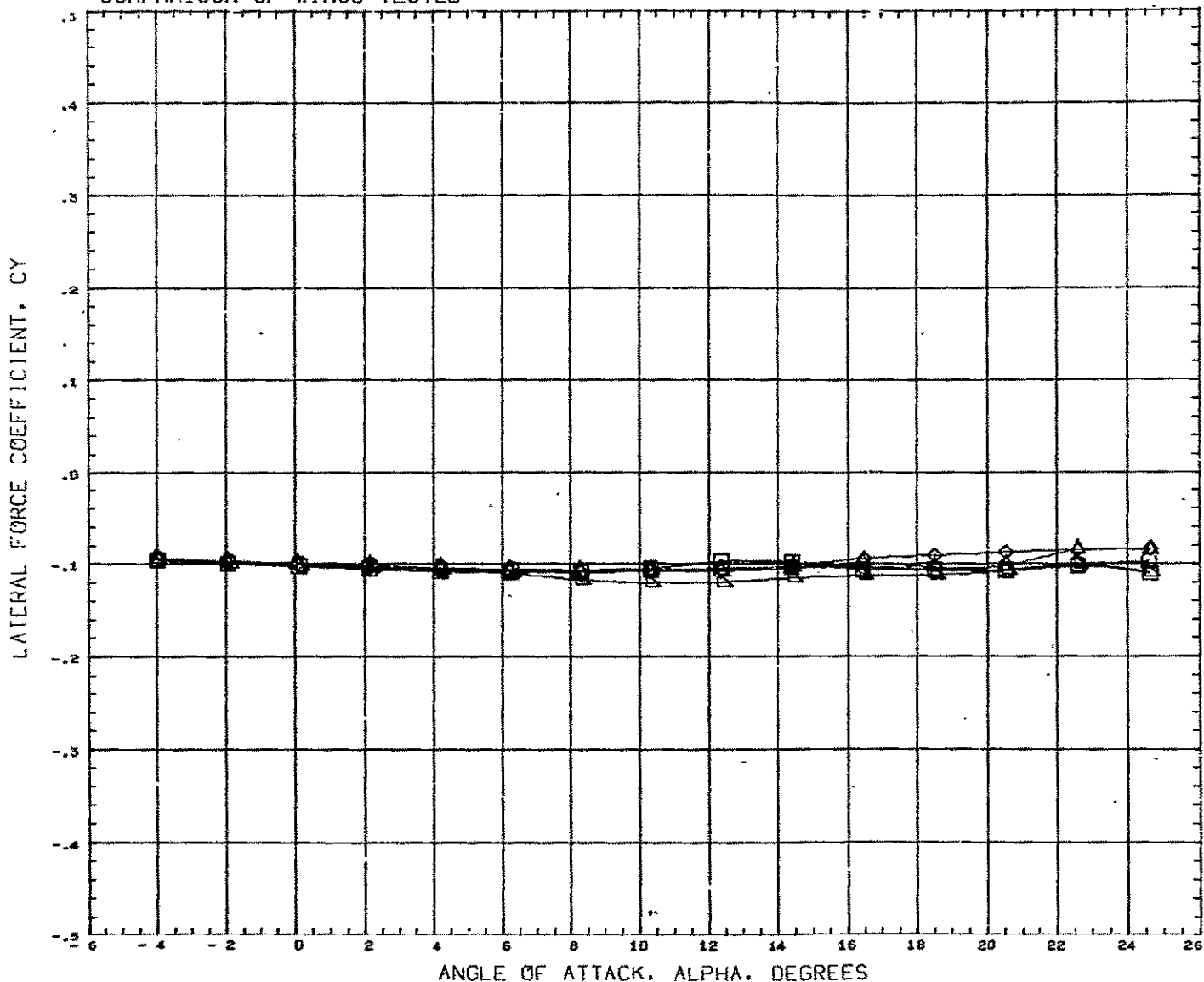
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COMPARISON OF WINGS TESTED



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(ACV002)	6DLST 587-1 B21X1V7C4W14	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV003)	6DLST 587-1 B21X1V7C4W15	0.000	0.000	0.000	0.000	LREF	15.2151 IN.
(ACV004)	6DLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV005)	6DLST 587-1 B21X1V7C4W17	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
(ACV005)	6DLST 587-1 B21X1V7C4W18	0.000	0.000	0.000	0.000	YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175
BETA	0.000						

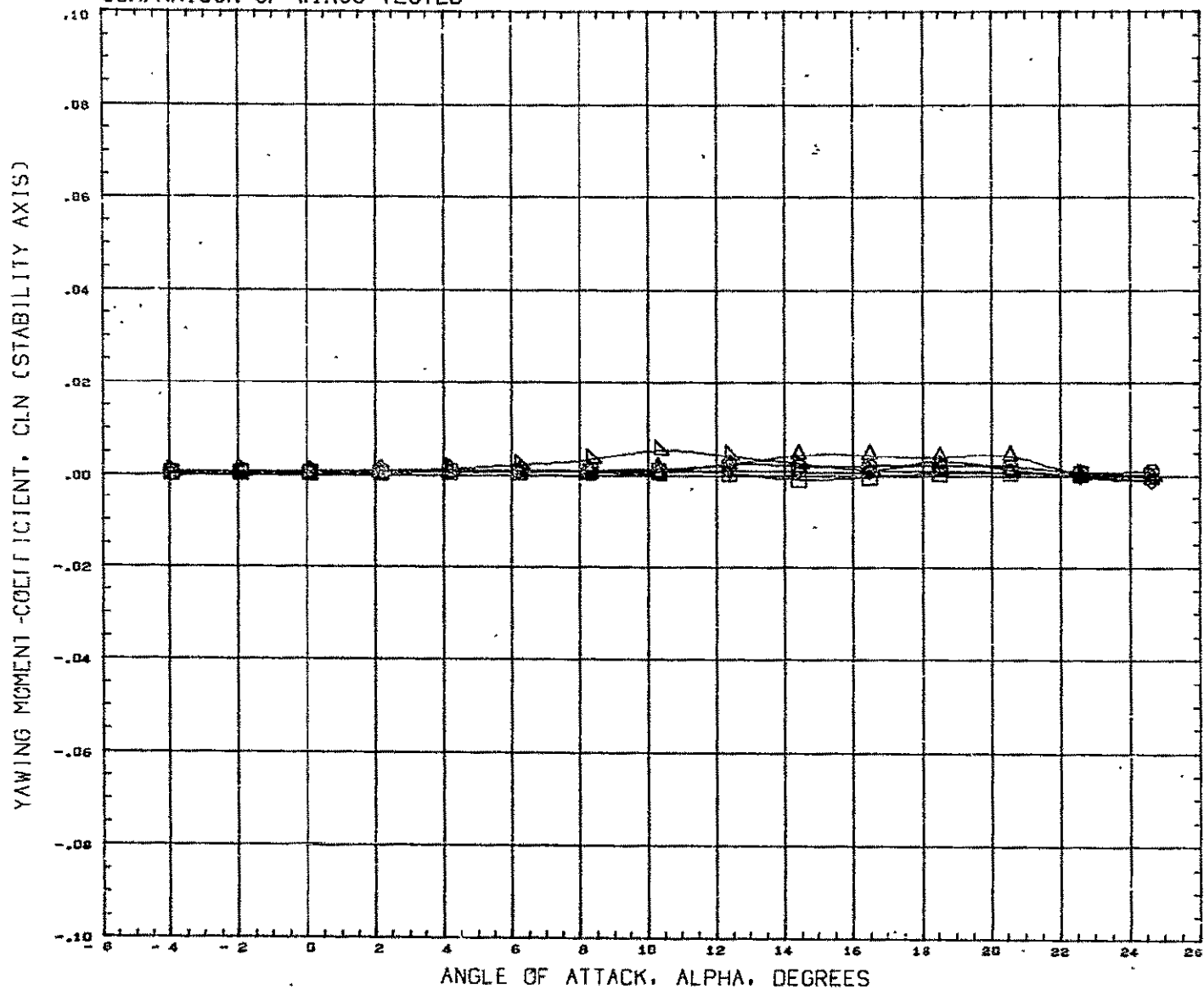
COMPARISON OF WINGS TESTED



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILERON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV002)	GDLST 587-1 B21X1V7C4W14	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV003)	GDLST 587-1 B21X1V7C4W15	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV006)	GDLST 587-1 B21X1V7C4W17	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
(ACV005)	GDLST 587-1 B21X1V7C4W18	0.000	0.000	0.000	0.000	YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

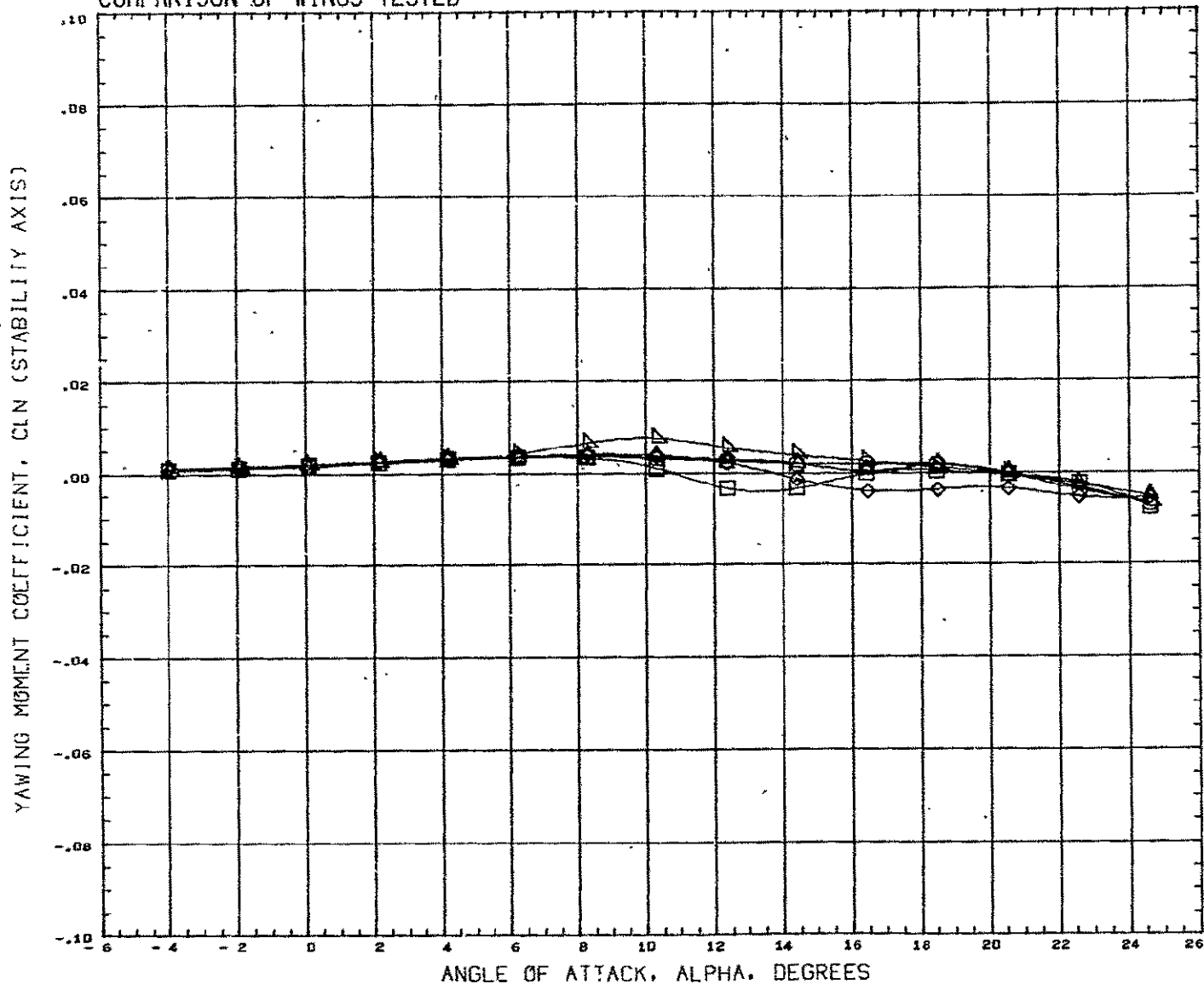
BETA 5.000

COMPARISON OF WINGS TESTED



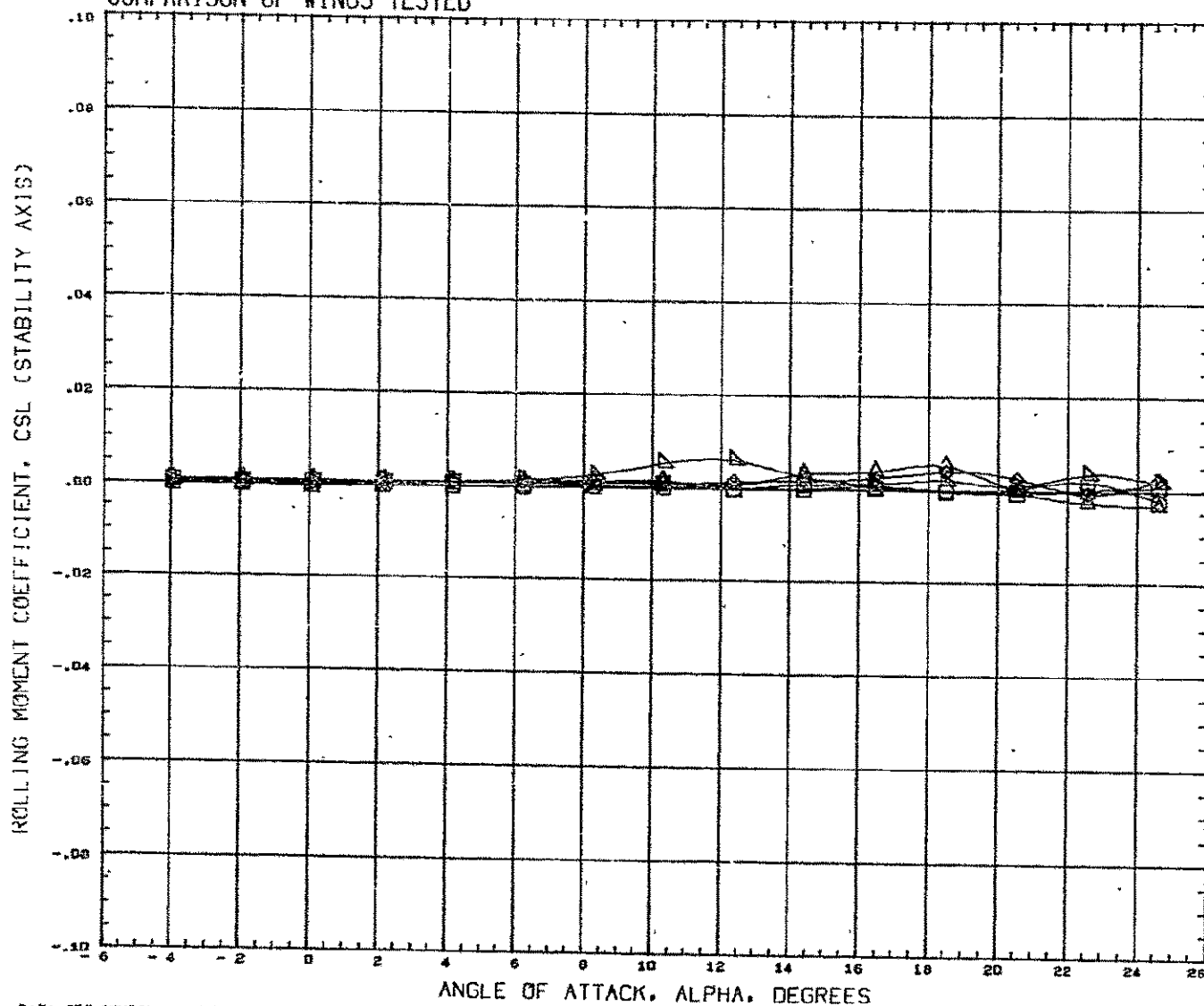
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTB	REFERENCE INFORMATION		
1ACV002,	GDLST 587-1 821X1V7C4W14	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
1ACV003,	GDLST 587-1 821X1V7C4W15	0.000	0.000	0.000	0.000	LREF	15.2156	IN.
1ACV004,	GDLST 587-1 821X1V7C4W16	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
1ACV006,	GDLST 587-1 821X1V7C4W17	0.000	0.000	0.000	0.000	XMRP	33.4360	IN.
1ACV005,	GDLST 587-1 821X1V7C4W18	0.000	0.000	0.000	0.000	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
BETA	0.000							

COMPARISON OF WINGS TESTED



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
1ACV002,	6DLST 587-1 B21X1V7C4W14	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
1ACV003,	6DLST 587-1 B21X1V7C4W15	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
1ACV004,	6DLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	SREF	30.4400 IN.
1ACV006,	6DLST 587-1 B21X1V7C4W17	0.000	0.000	0.000	0.000	XMRP	33.4560 IN.
1ACV005,	6DLST 587-1 B21X1V7C4W18	0.000	0.000	0.000	0.000	YMRP	0.0000 IN.
						ZMRP	3.9580 IN.
						SCALE	0.0175
BETA 1.000							

COMPARISON OF WINGS TESTED

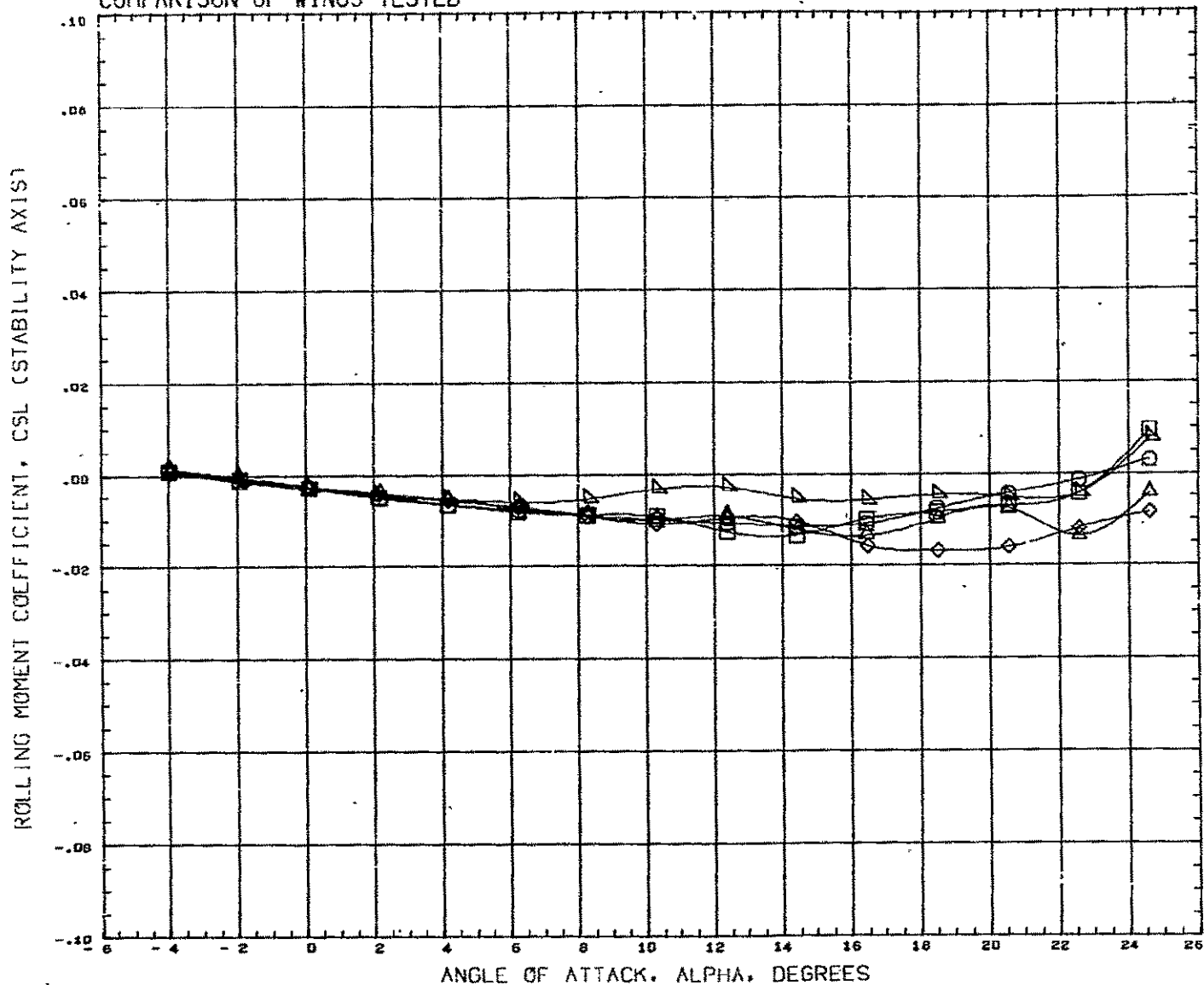


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
ACV002	GDLST 587-1 B21X1V7C4W14
ACV003	GDLST 587-1 B21X1V7C4W15
ACV004	GDLST 587-1 B21X1V7C4W16
ACV006	GDLST 587-1 B21X1V7C4W17
ACV005	GDLST 587-1 B21X1V7C4W18

BETA 0.000

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
0.000	0.000	0.000	0.000	LRFP 15.2150 IN.
0.000	0.000	0.000	0.000	BRFP 30.2400 IN.
0.000	0.000	0.000	0.000	XMRP 33.4260 IN.
0.000	0.000	0.000	0.000	YMRP 0.0000 IN.
0.000	0.000	0.000	0.000	ZMRP 3.9380 IN.
				SCALE 0.0176

COMPARISON OF WINGS TESTED

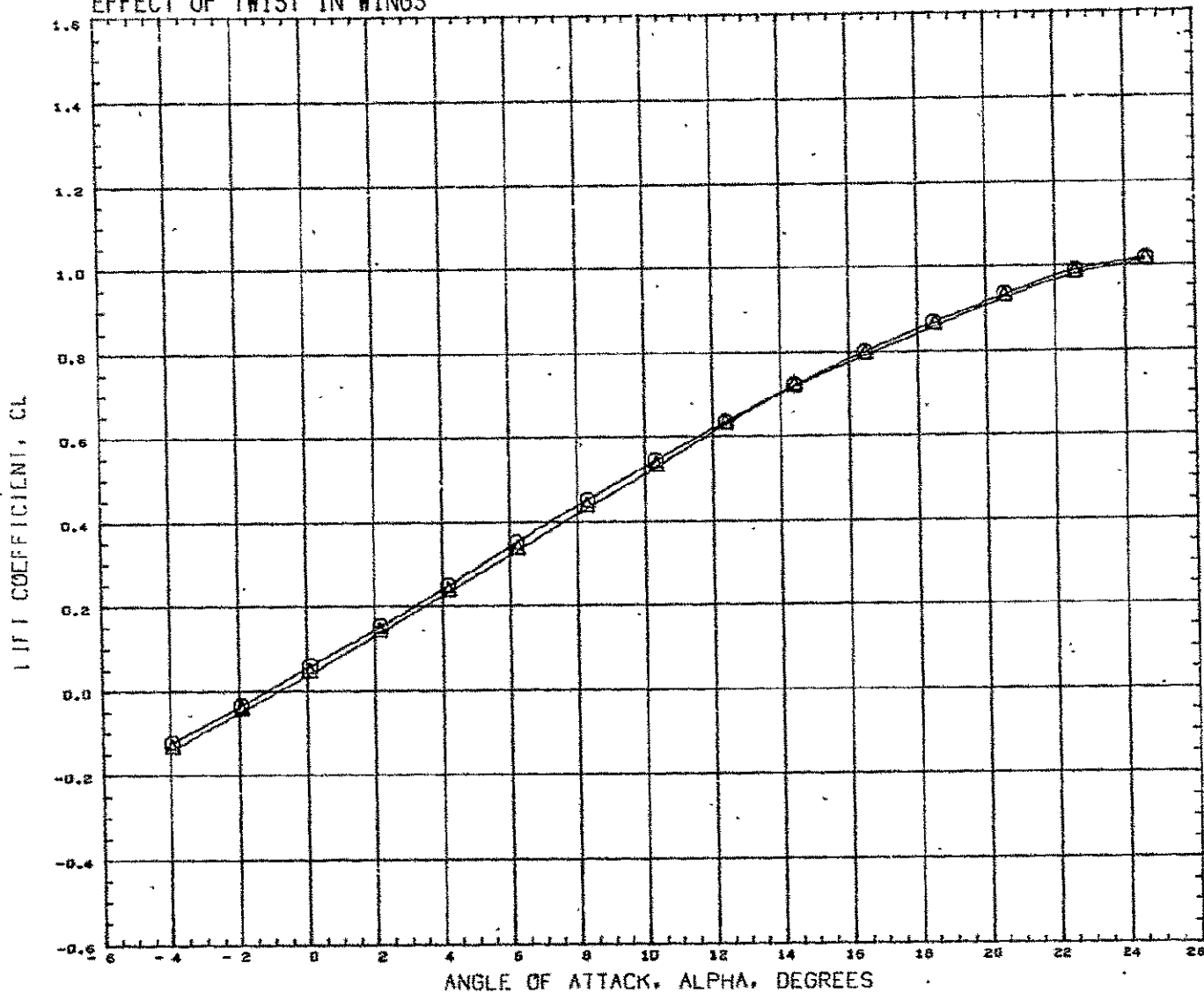


DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(ACV002)	GDLST 587-1	B21X1V7C4W14
(ACV003)	GDLST 587-1	B21X1V7C4W15
(ACV004)	GDLST 587-1	B21X1V7C4W16
(ACV006)	GDLST 587-1	B21X1V7C4W17
(ACV005)	GDLST 587-1	B21X1V7C4W18

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	380.3004	sq. IN
0.000	0.000	0.000	0.000	LREF	15.2156	IN.
0.000	0.000	0.000	0.000	BREF	30.4400	IN.
0.000	0.000	0.000	0.000	XMRP	33.4360	IN.
0.000	0.000	0.000	0.000	YMRP	0.0000	IN.
				ZMRP	3.9380	IN.
				SCALE	0.0175	

BETA 5.000

EFFECT OF TWIST IN WINGS

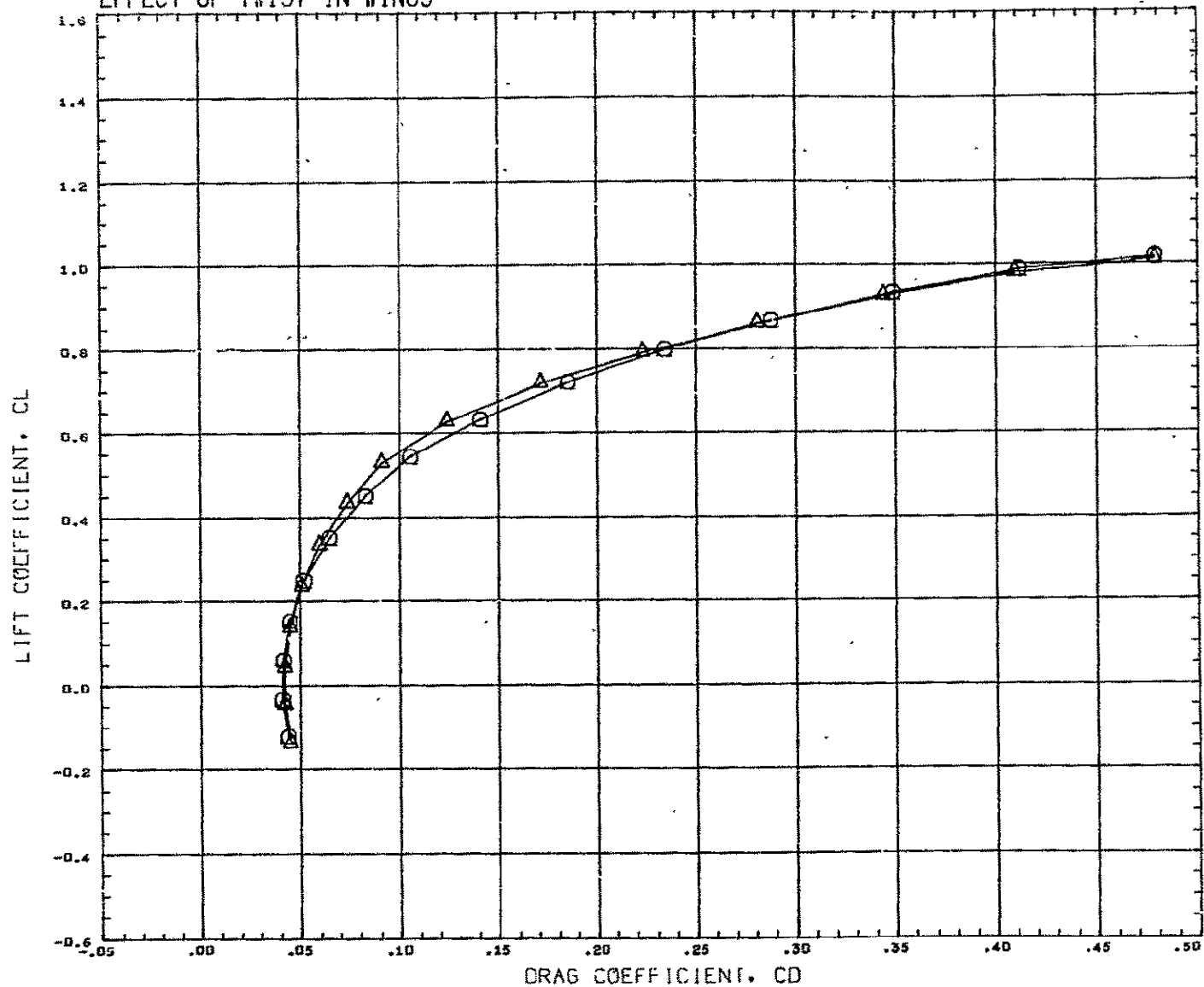


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCVDD5)	GDLST 587-2 B21X1V7C4W18
(BCVDD2)	GDLST 587-1 B21X1V7C4W14

ELEVTR	AILRON	RUDER	CANVTR	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
0.000	0.000	0.000	0.000	LREF 15.2158 IN.
				BREF 30.4400 IN.
				XREF 33.4360 IN.
				YREF 0.0000 IN.
				ZREF 3.9380 IN.
				SCALE 0.0175

BETA 0.000

EFFECT OF TWIST IN WINGS



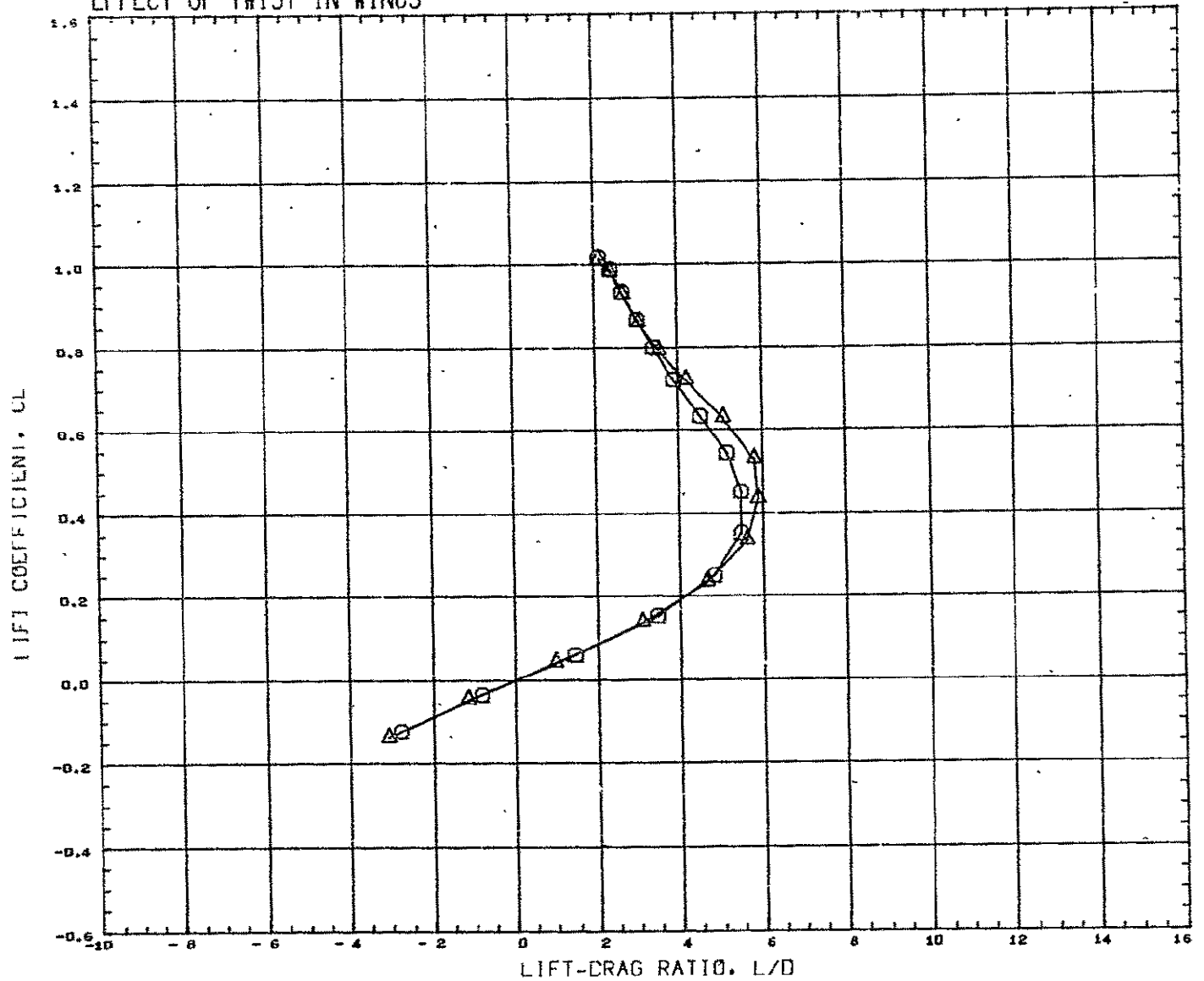
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(BCV005)	GDLST 587-1	B21X1V7C4W18
(BCV002)	GDLST 587-1	B21X1V7C4W14

ELEVTR	AILRON	RUDDER	CANVTR
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION	
SREF	380.3004 SQ. IN
LREF	15.2159 IN.
BREF	30.4400 IN.
XMRP	33.4360 IN.
YMRP	0.0000 IN.
ZMRP	3.9380 IN.
SCALE	0.0175

BETA 0.000

EFFECT OF TWIST IN WINGS



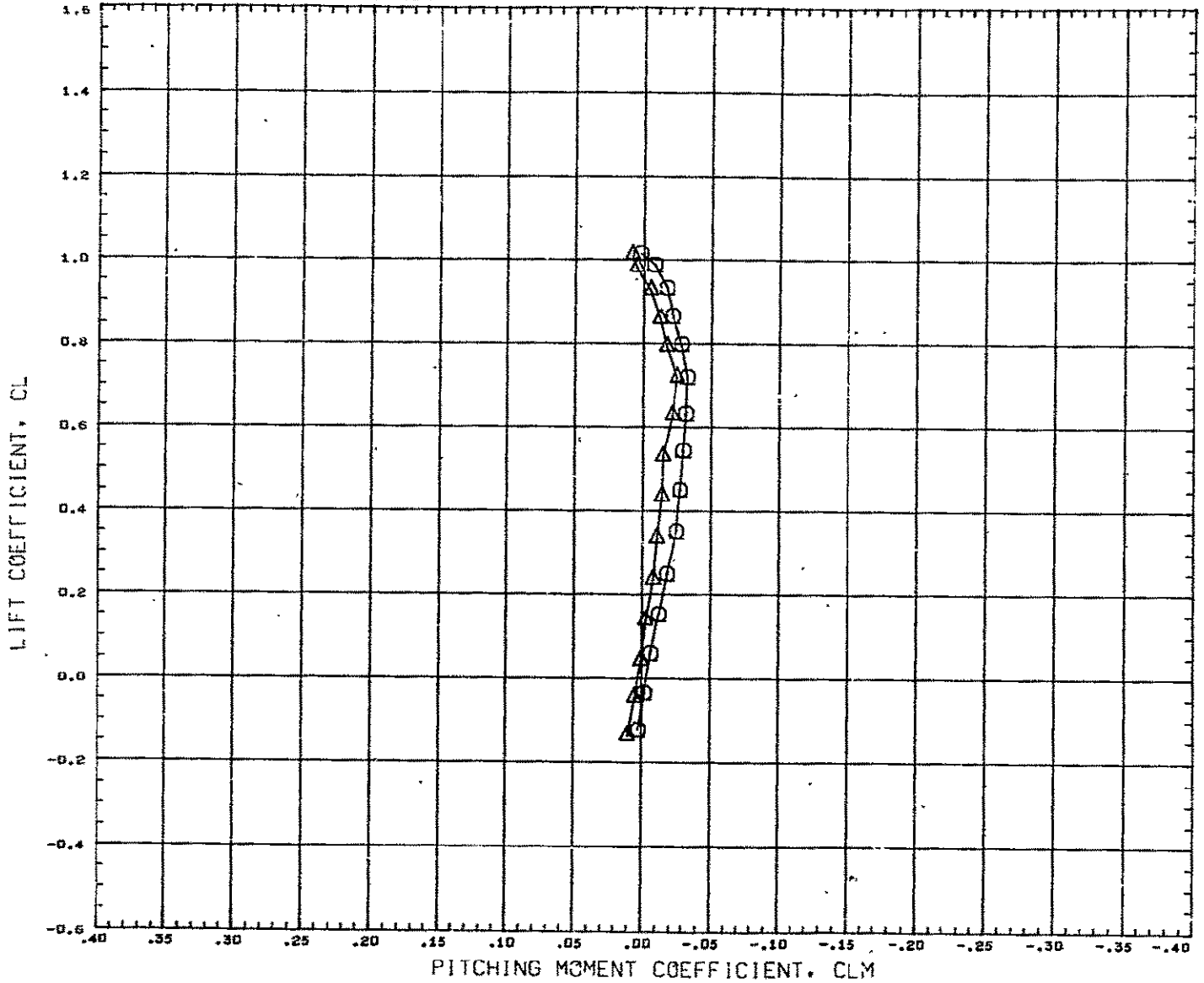
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BCV005) \circ GDLST 587-1 B21X1V7C4W18
 (BCV002) Δ GDLST 587-1 B21X1V7C4W14

ELEVTR AILRON RUDDER CANVTR
 0.000 0.000 0.000 0.000
 0.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 380.3004 SQ. IN
 LREF 15.7150 IN.
 BREF 30.4400 IN.
 XMRP 33.4360 IN.
 YMRP 0.0000 IN.
 ZMRP 3.9380 IN.
 SCALE 0.0175

BETA 0.000

EFFECT OF TWIST IN WINGS



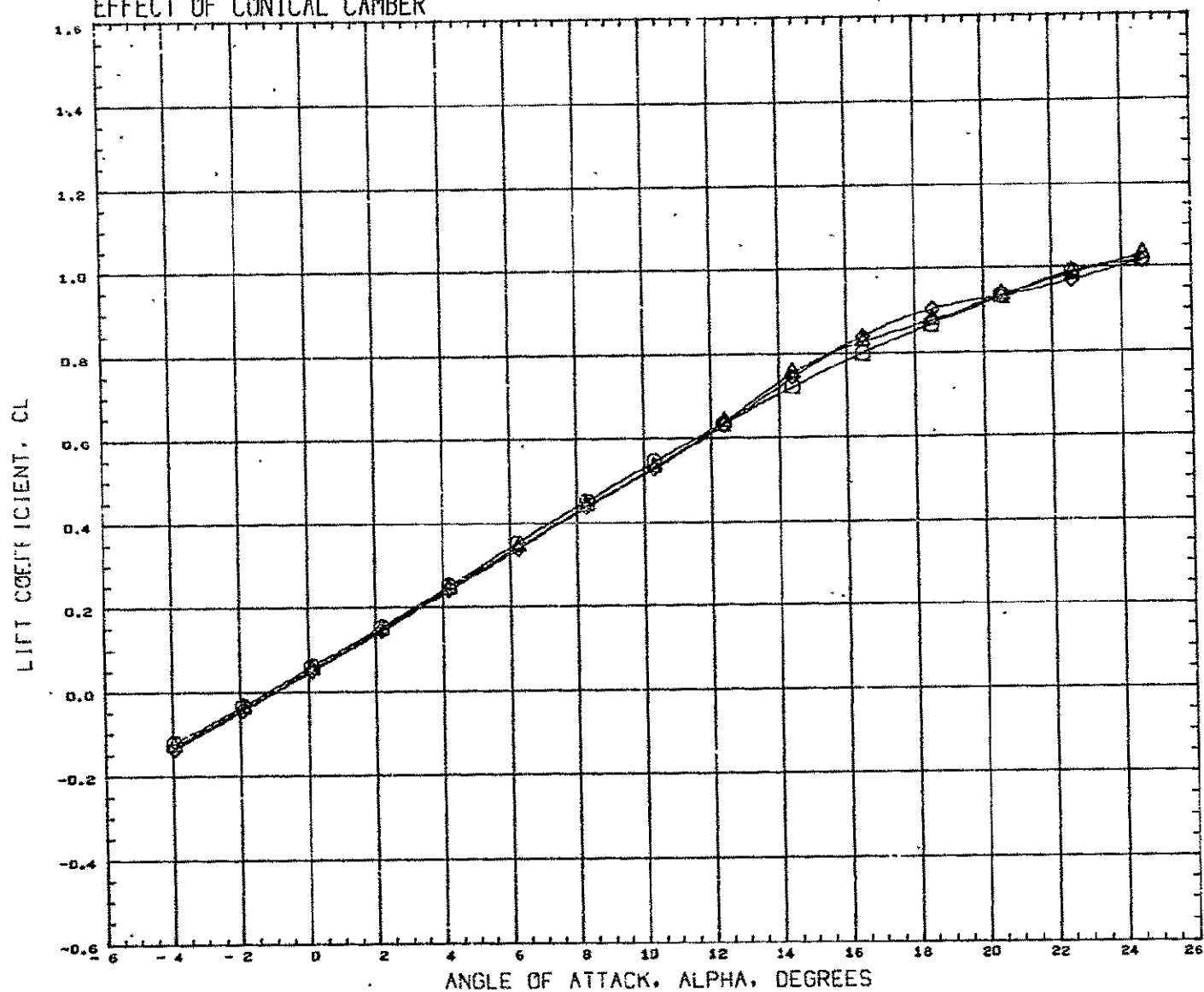
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BCVDD5) 8 GDLST 587-1 B21X1V7C4W18
 (BCVDU2) 8 GDLST 587-1 B21X1V7C4W14

ELEVTR AILRON RUDDER CANVTR
 0.000 0.000 0.000 0.000
 0.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 380.3004 SQ. IN
 LREF 15.2151 IN.
 BREF 30.4400 IN.
 XMRP 33.4360 IN.
 YMRP 0.0000 IN.
 ZMRP 3.9380 IN.
 SCALE 0.0175

BETA 0.000

EFFECT OF CONICAL CAMBER

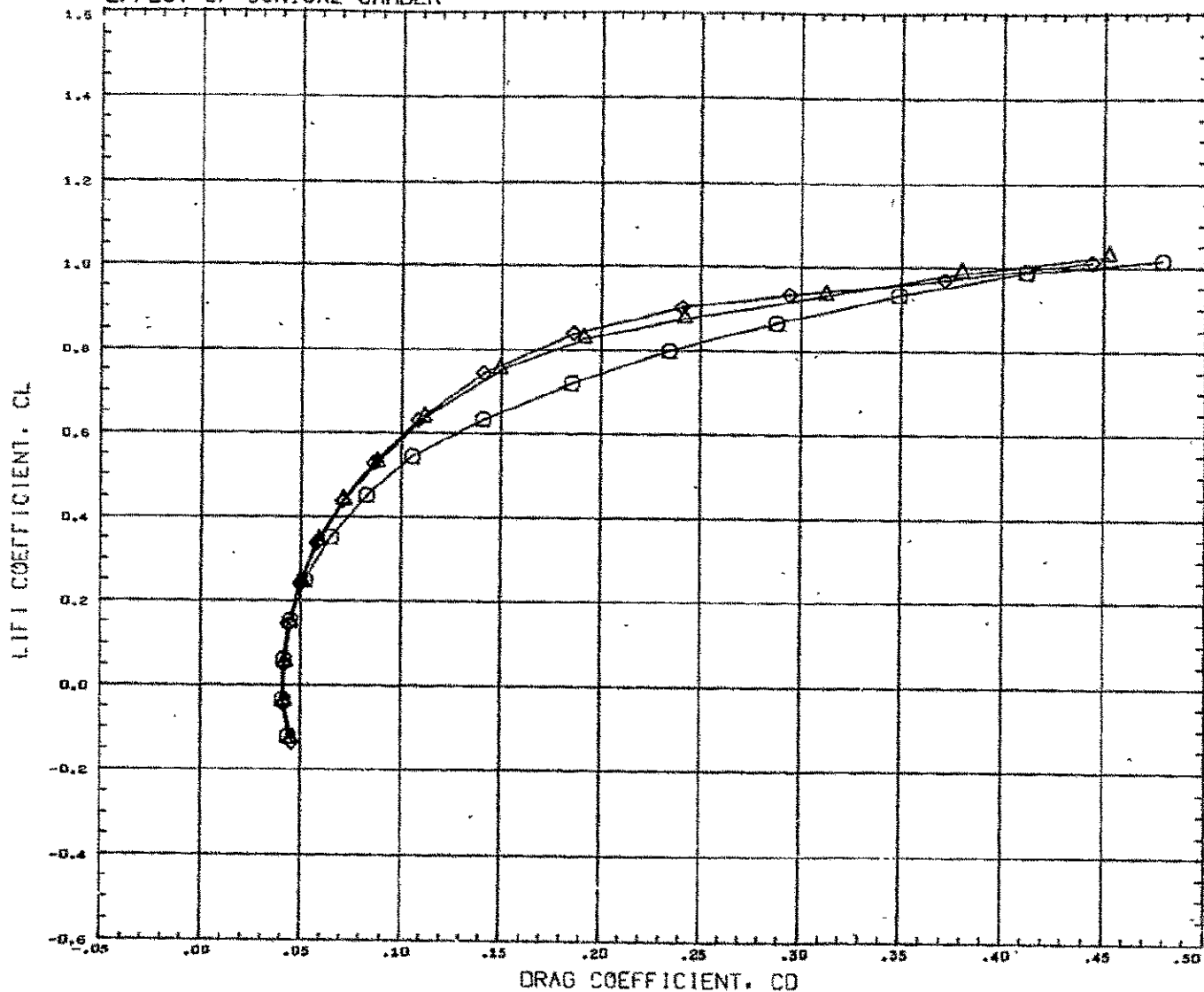


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCV005)	GDLST 587-1 B21X1V7C4W18
(BCV003)	GDLST 587-1 B21X1V7C4W15
(BCV004)	GDLST 587-1 B21X1V7C4W16

ELEVTR	AILRON	RUDDER	CANYTR	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
0.000	0.000	0.000	0.000	LREF 15.2150 IN.
0.000	0.000	0.000	0.000	BRF 30.4400 IN.
				XNRF 33.4360 IN.
				YNRF 0.0000 IN.
				ZNRF 3.9360 IN.
				SCALE 0.0175

BETA 0.000

EFFECT OF CONICAL CAMBER

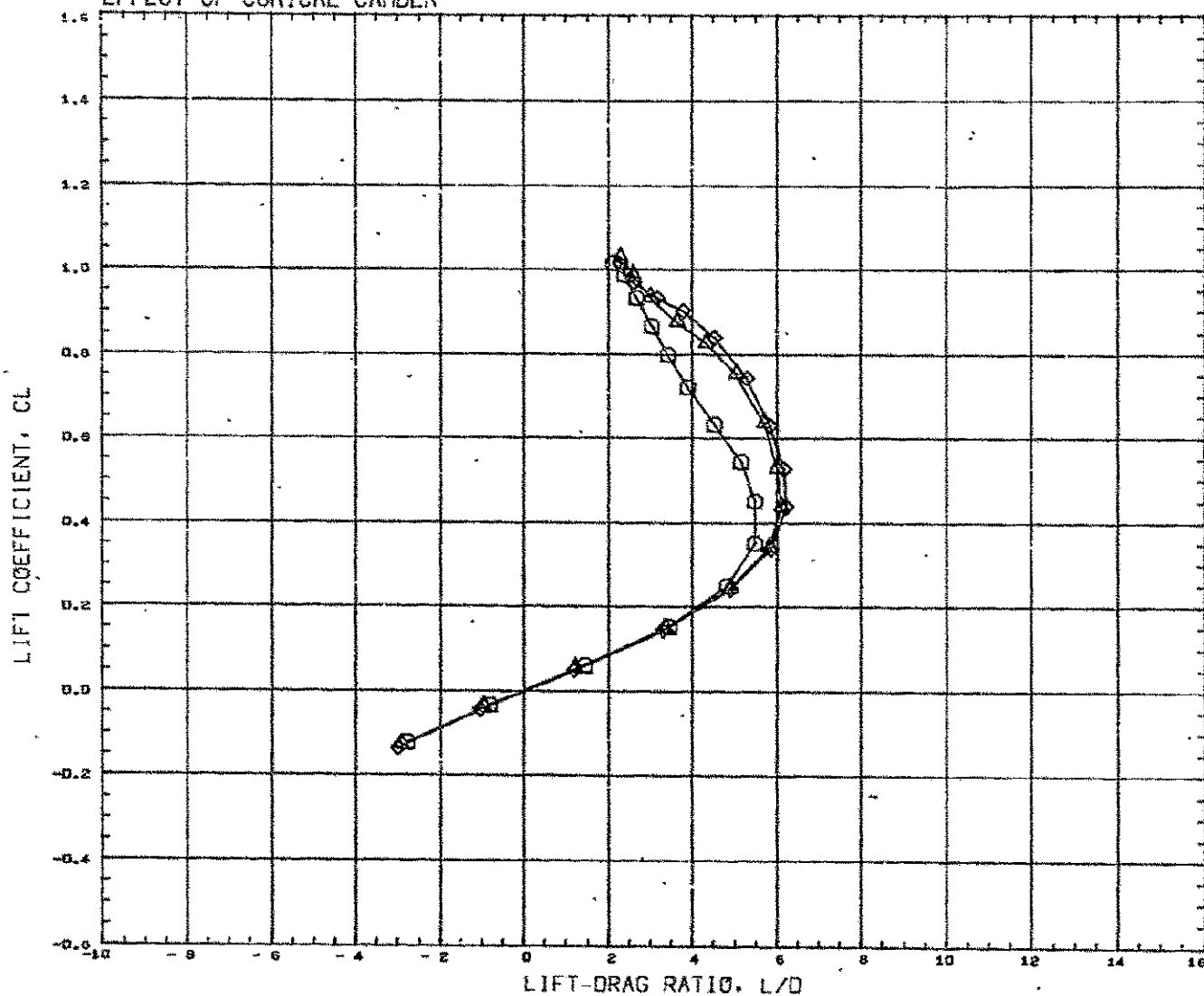


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 1BCV005, ○ GDLST 587-1 B21X1V7C4W18
 1BCV003, △ GDLST 587-1 B21X1V7C4W15
 1BCV004, ◇ GDLST 587-1 B21X1V7C4W16

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
0.000	0.000	0.000	0.000	LREF	15.2156 IN.
0.000	0.000	0.000	0.000	BREF	39.4400 IN.
				XHRP	35.4360 IN.
				YHRP	0.0000 IN.
				ZHRP	3.9300 IN.
				SCALE	0.0170

BETA - 0.000

EFFECT OF CONICAL CAMBER

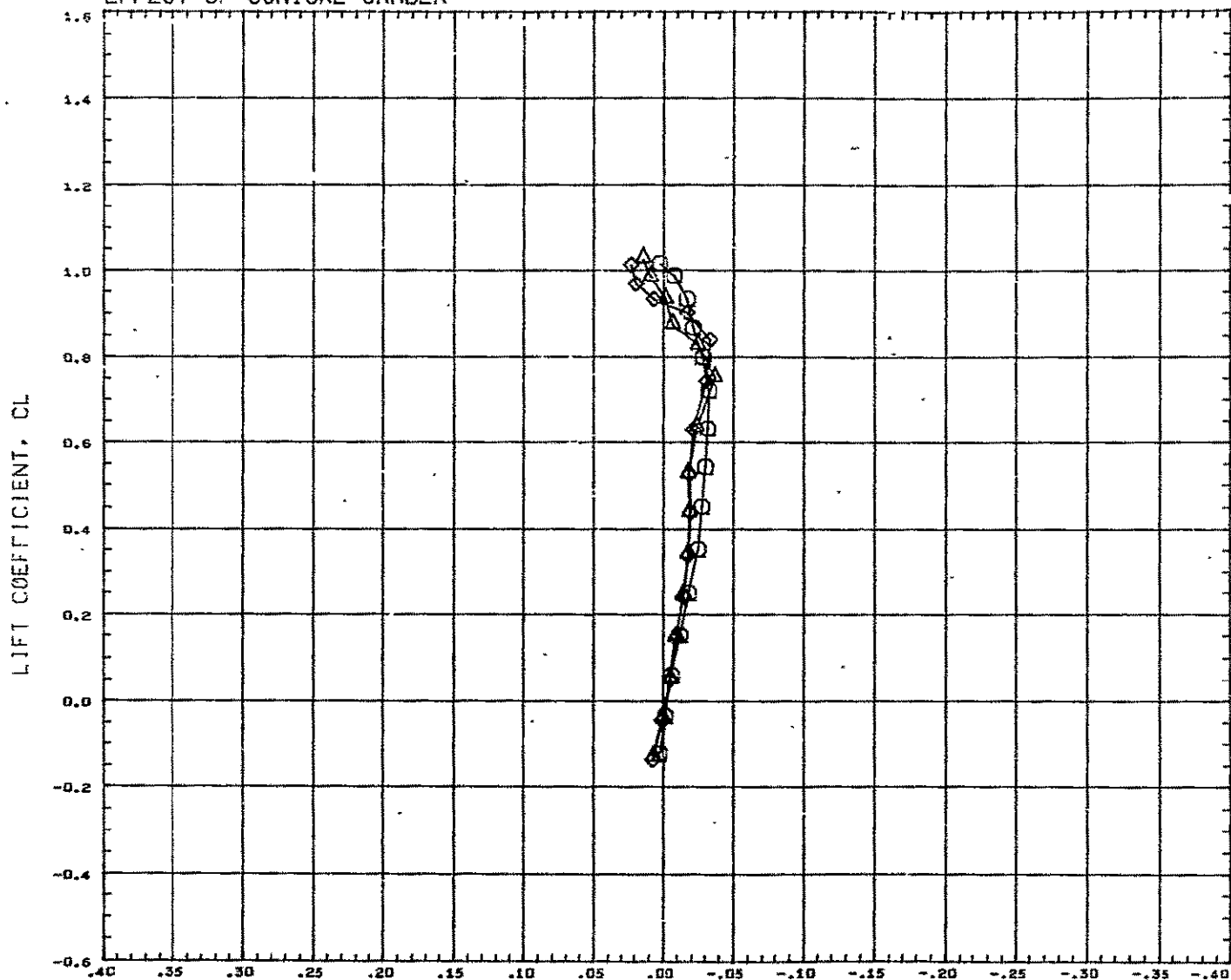


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCV005)	GDLST 587-1 B21X1V7C4W18
(BCV003)	GDLST 587-1 B21X1V7C4W15
(BCV004)	GDLST 587-1 B21X1V7C4W16

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
0.000	0.000	0.000	0.000	LREF 15.2154 IN.
0.000	0.000	0.000	0.000	OREF 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

EFFECT OF CONICAL CAMBER



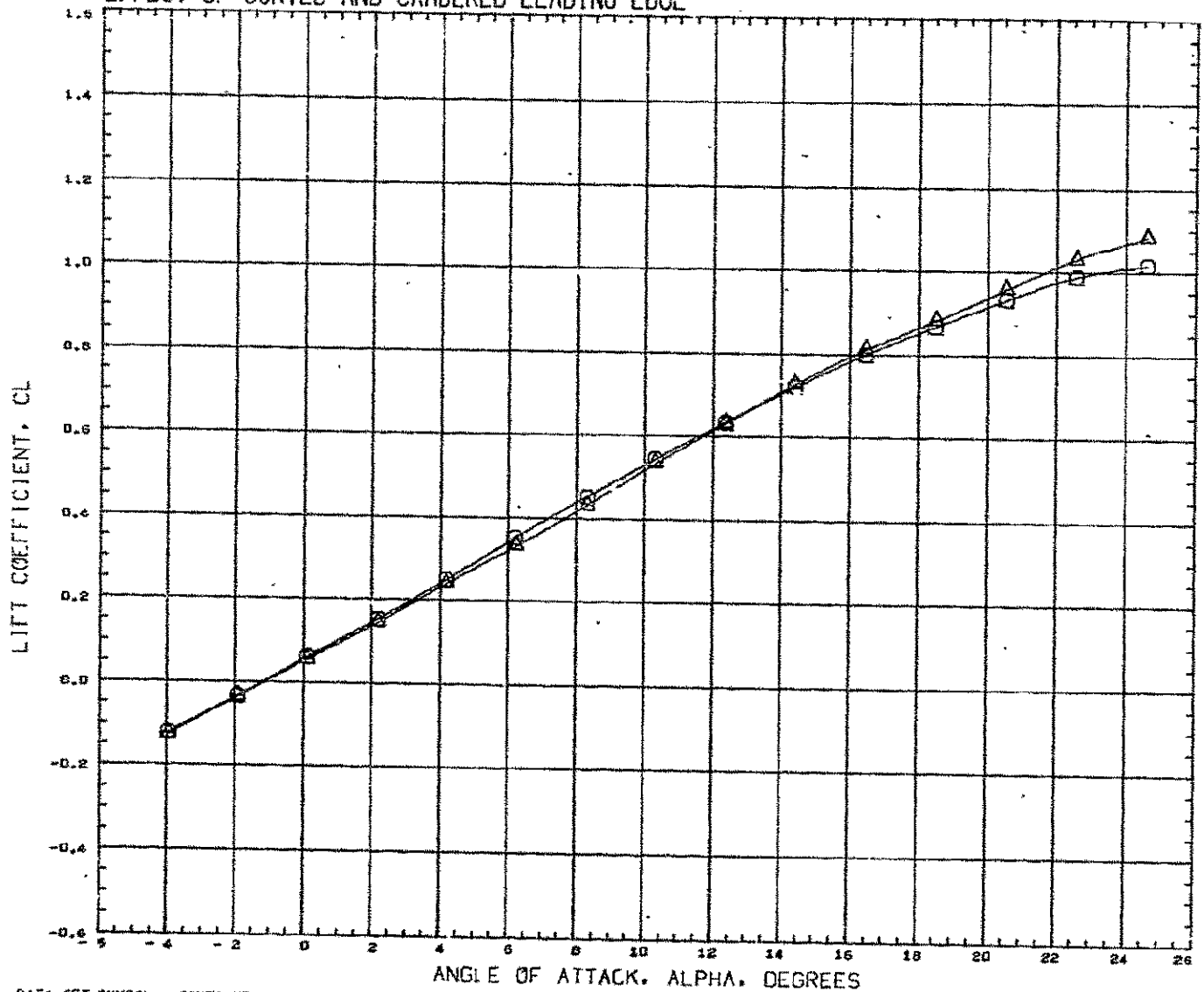
DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
BCY005	○	6DLST 587-1	B21X1V7C4W18
BCY003	△	6DLST 587-1	B21X1V7C4W15
BCY004	◇	6DLST 587-1	B21X1V7C4W16

ELEVTR	AILRON	RUDDER	CANVTR
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRF	33.4360	IN.
YMRF	0.0000	IN.
ZMRF	3.9380	IN.
SCALE	0.0175	

BETA 0.000

EFFECT OF CURVED AND CAMBERED LEADING EDGE



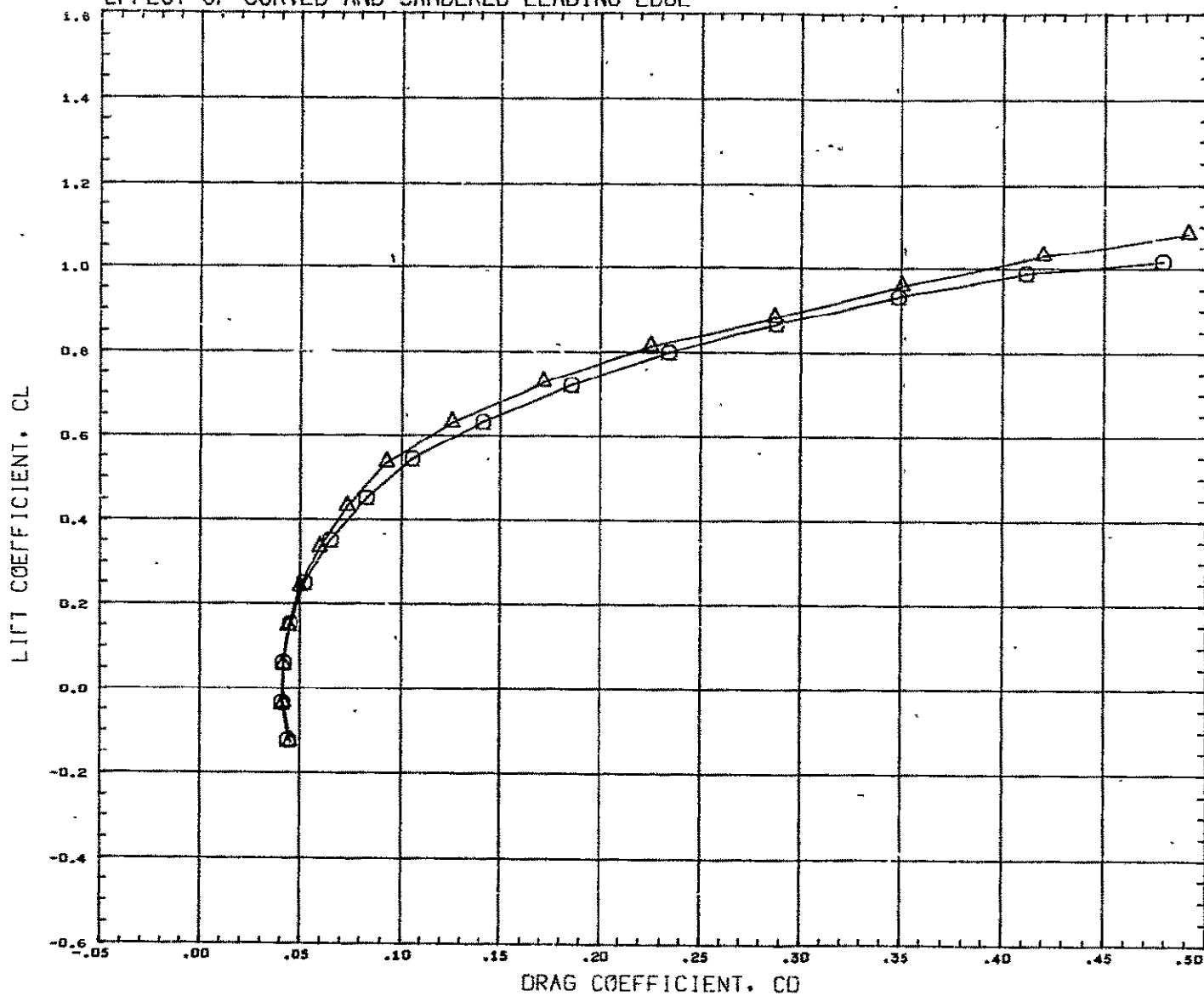
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BCVDBS) GDLST 587-1 B21X1V7C4W18
 (BCVDBS) GDLST 587-1 B21X1V7C4W17

ELEVTR AILRON RUDDER CANVTR
 0.000 0.000 0.000 0.000
 0.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 380.3004 SQ. IN
 LREF 15.2153 IN.
 BREF 30.4400 IN.
 XMRP 33.4360 IN.
 YMRP 0.0000 IN.
 ZMRP 3.9380 IN.
 SCALE 0.0175

BETA 0.800

EFFECT OF CURVED AND CAMBERED LEADING EDGE

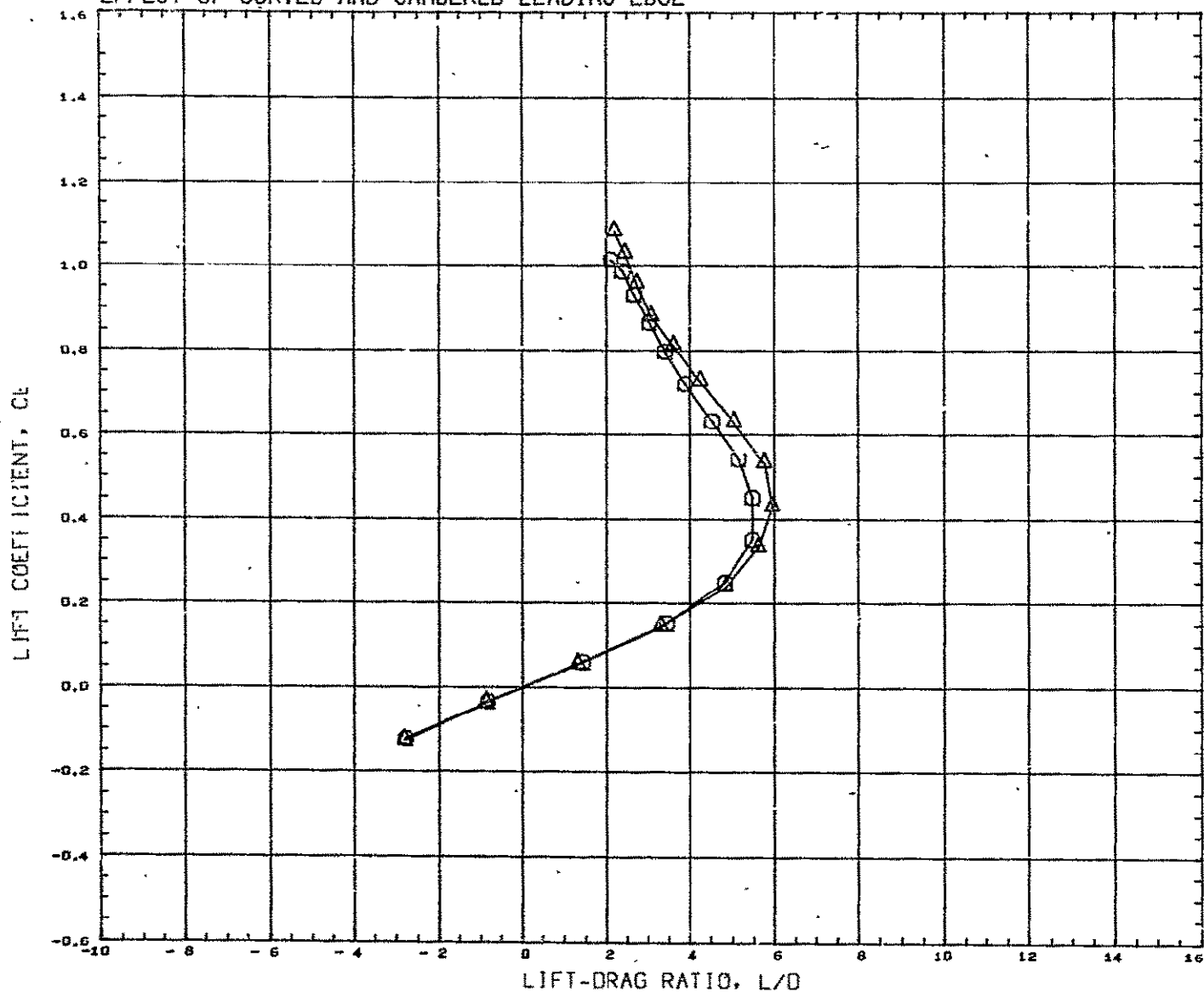


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BCV005, \circ GDLST 587-1 B21X1V7C4W18
 (BCV006, Δ GDLST 587-1 B21X1V7C4W17

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
0.000	0.000	0.000	0.000	LREF	15.2157 IN.
				BREF	30.4400 IN.
				XMRF	33.4360 IN.
				YMRP	0.0000 IN.
				ZMRP	3.9380 IN.
				SCALE	0.0175

BETA 0.000

EFFECT OF CURVED AND CAMBERED LEADING EDGE

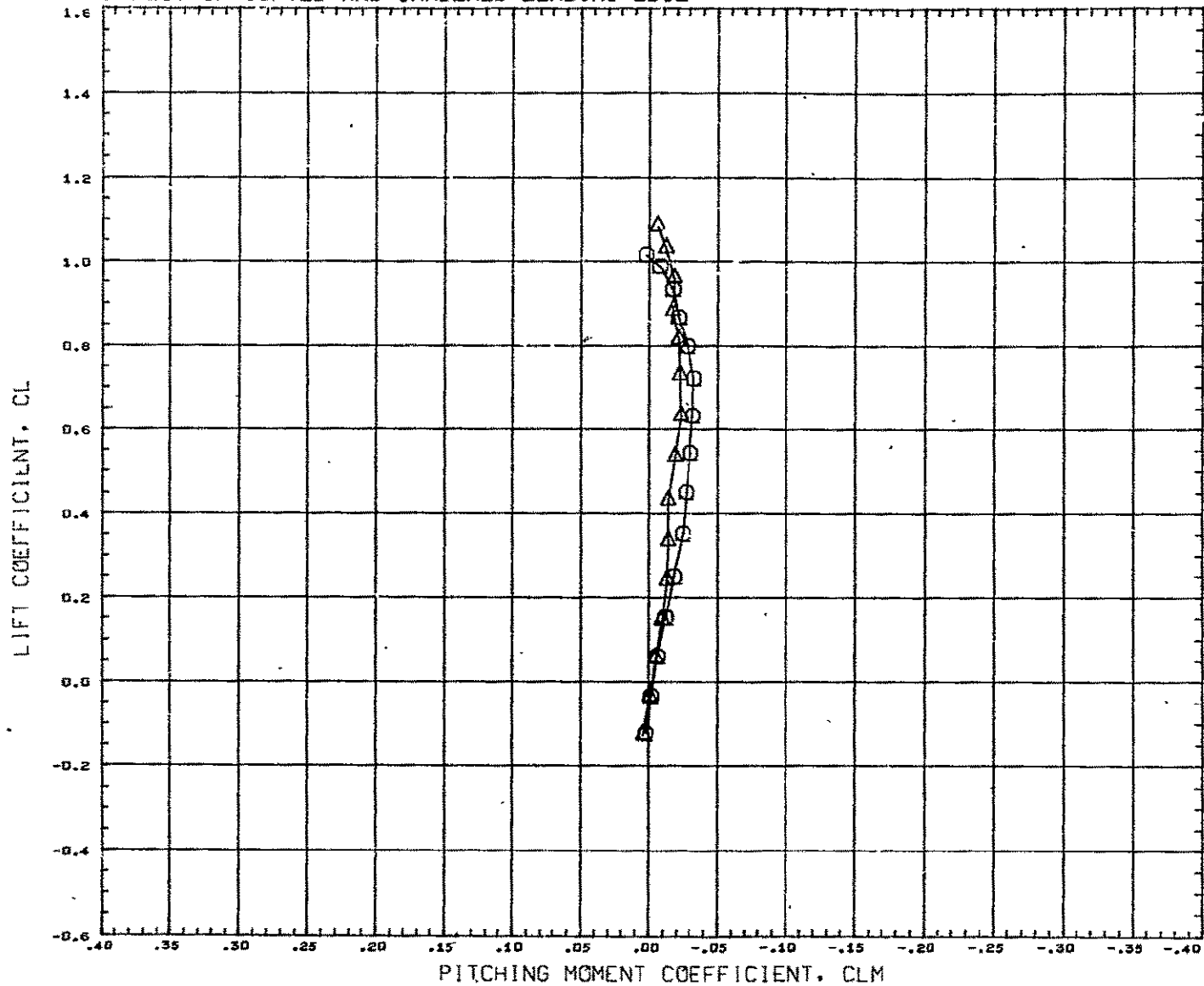


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BCV005) GDLST 587-1 B21X1V7C4W18
 (BCV006) GDLST 587-1 B21X1V/C4W17

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
0.000	0.000	0.000	0.000	LREF 19.2150 IN.
				BREF 30.7400 IN.
				XMRP 33.4260 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

EFFECT OF CURVED AND CAMBERED LEADING EDGE

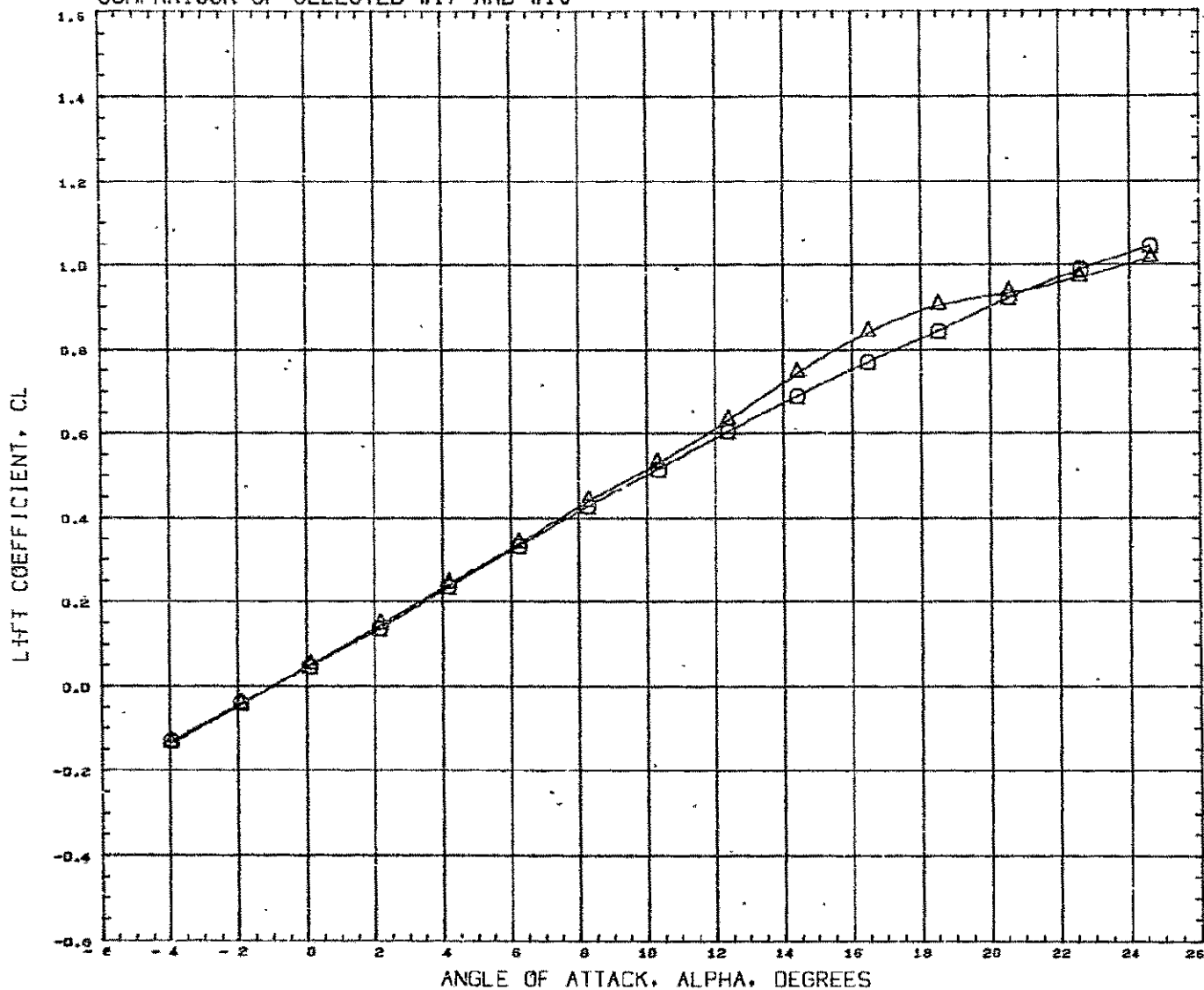


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 :BCV005, GDLST 587-1 B21X1V7C4W18
 :BCV006, GDLST 587-1 B21X1V7C4W17

ELEVTR	AILRON	RUDDER	CANVTB	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	380.300- SQ. IN
0.000	0.000	0.000	0.000	LREF	15.2153 IN.
				BREF	30.4400 IN.
				XMRP	33.4360 IN.
				YMRP	0.0000 IN.
				ZMRP	3.9380 IN.
				SCALE	0.0173

BETA 0.000

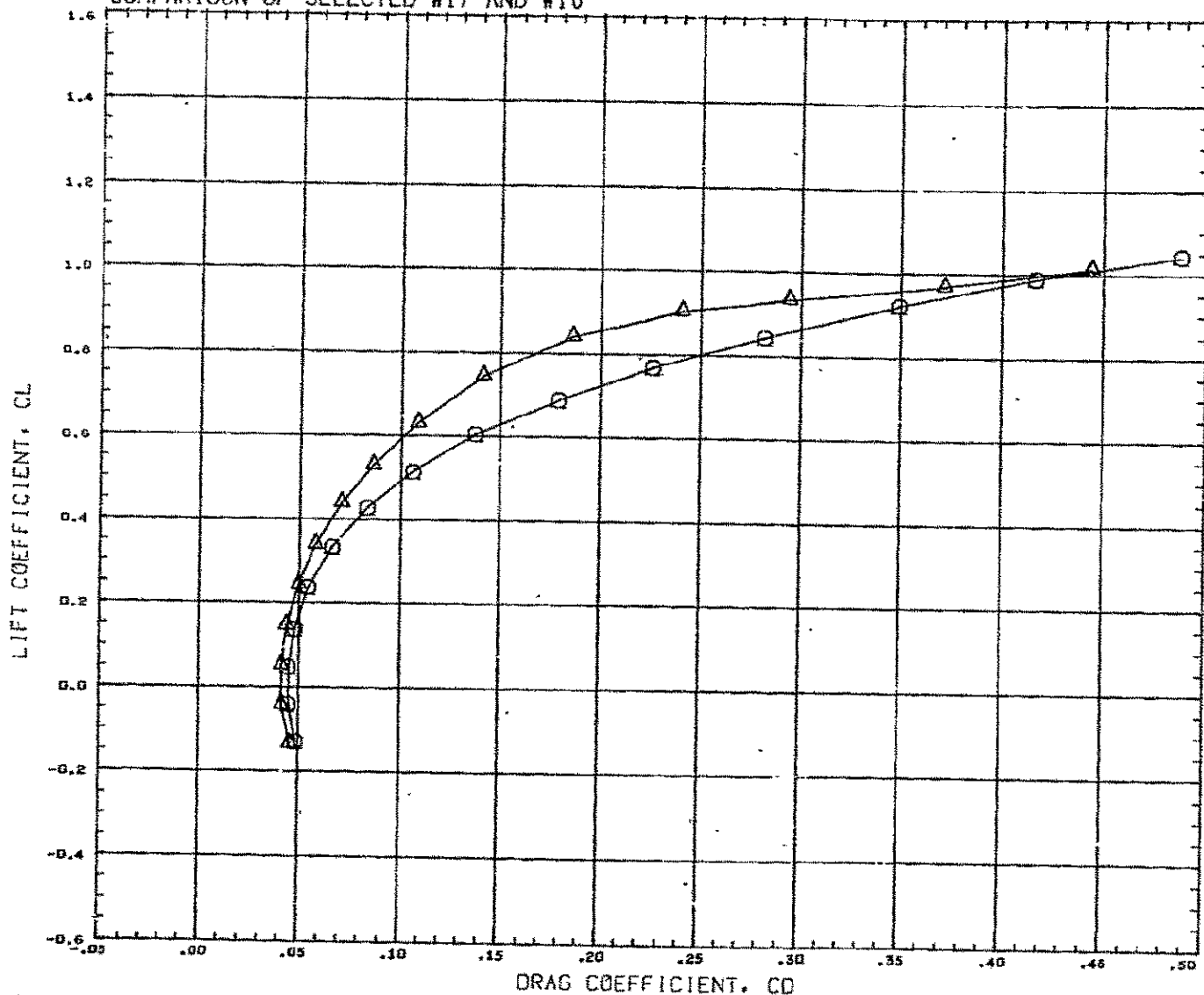
COMPARISON OF SELECTED W17 AND W10



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(BCV001)	GDLST 587-1 619V1C4W10 B-158 TIE IN RUN	0.000	0.000	0.000	0.000	SREF	343.8704 SQ. IN
(BCV004)	GDLST 587-2 B21A1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.0624 IN.
						BREF	30.4400 IN.
						XMRF	33.4560 IN.
						YMRF	0.0000 IN.
						ZMRF	3.9300 IN.
						SCALE	0.0175

BETA 0.000

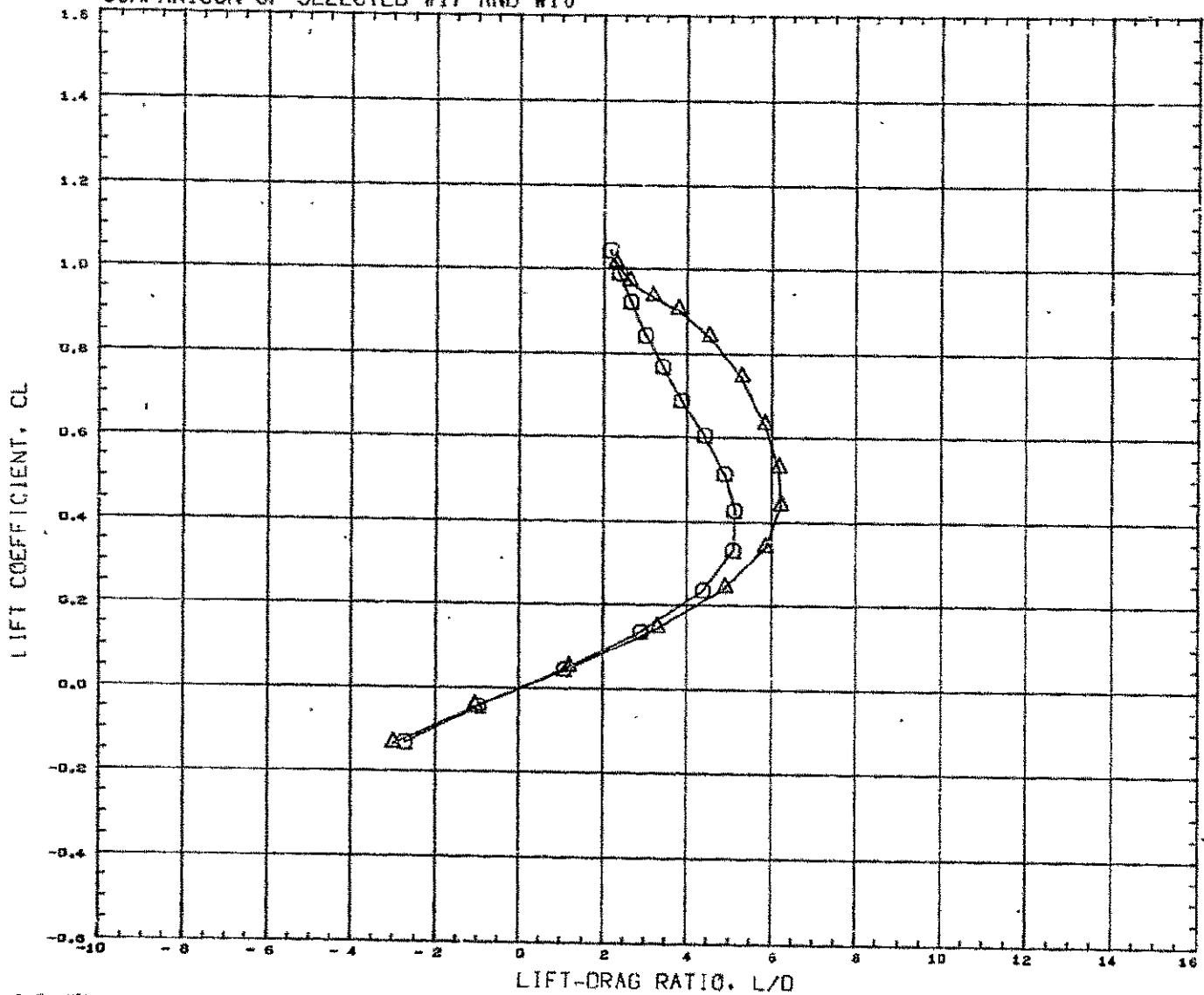
COMPARISON OF SELECTED W17 AND W10



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(BCV001)	GDLST 587-1 B19V7C4W10 B-15B TIE IN RUN	0.000	0.000	0.000	0.000	SREF	543.8704 SQ. IN
(BCV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.0623 IN.
						BREF	30.4400 IN.
						XREF	33.4360 IN.
						YREF	0.0000 IN.
						ZREF	3.9322 IN.
						SCALE	0.0175

BETA 0.000

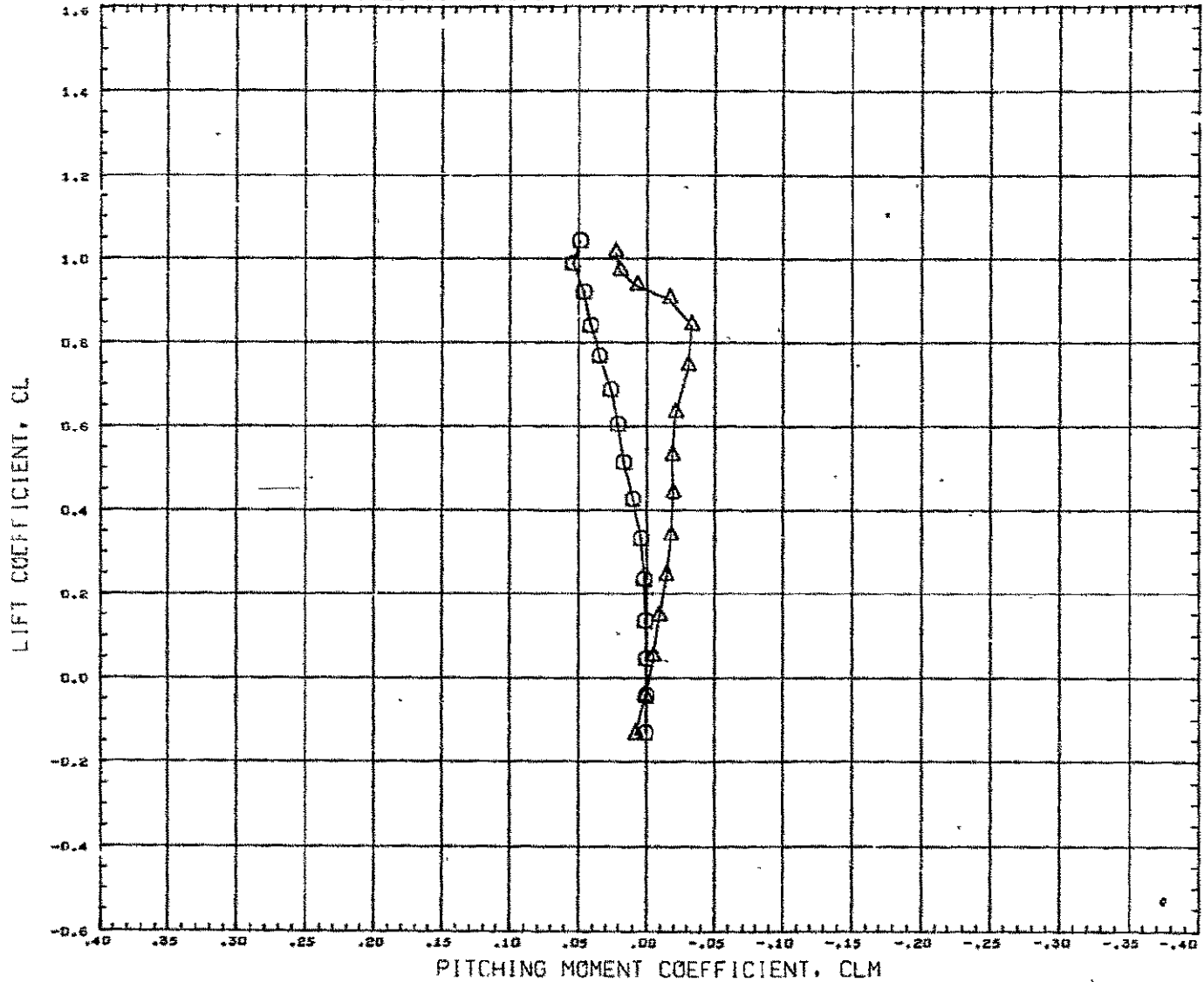
COMPARISON OF SELECTED W17 AND W10



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
BCV001	CDLST 587-1 B19V7C4W10 B-153 TIE IN RUN	0.000	0.000	0.000	0.000	SREF	343.8704 SQ. IN
BCV004	CDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.9627 IN.
						BREF	30.4400 IN.
						MREF	33.4380 IN.
						YREF	0.0000 IN.
						ZREF	3.9380 IN.
						SCALE	0.0175

BETA 0.000

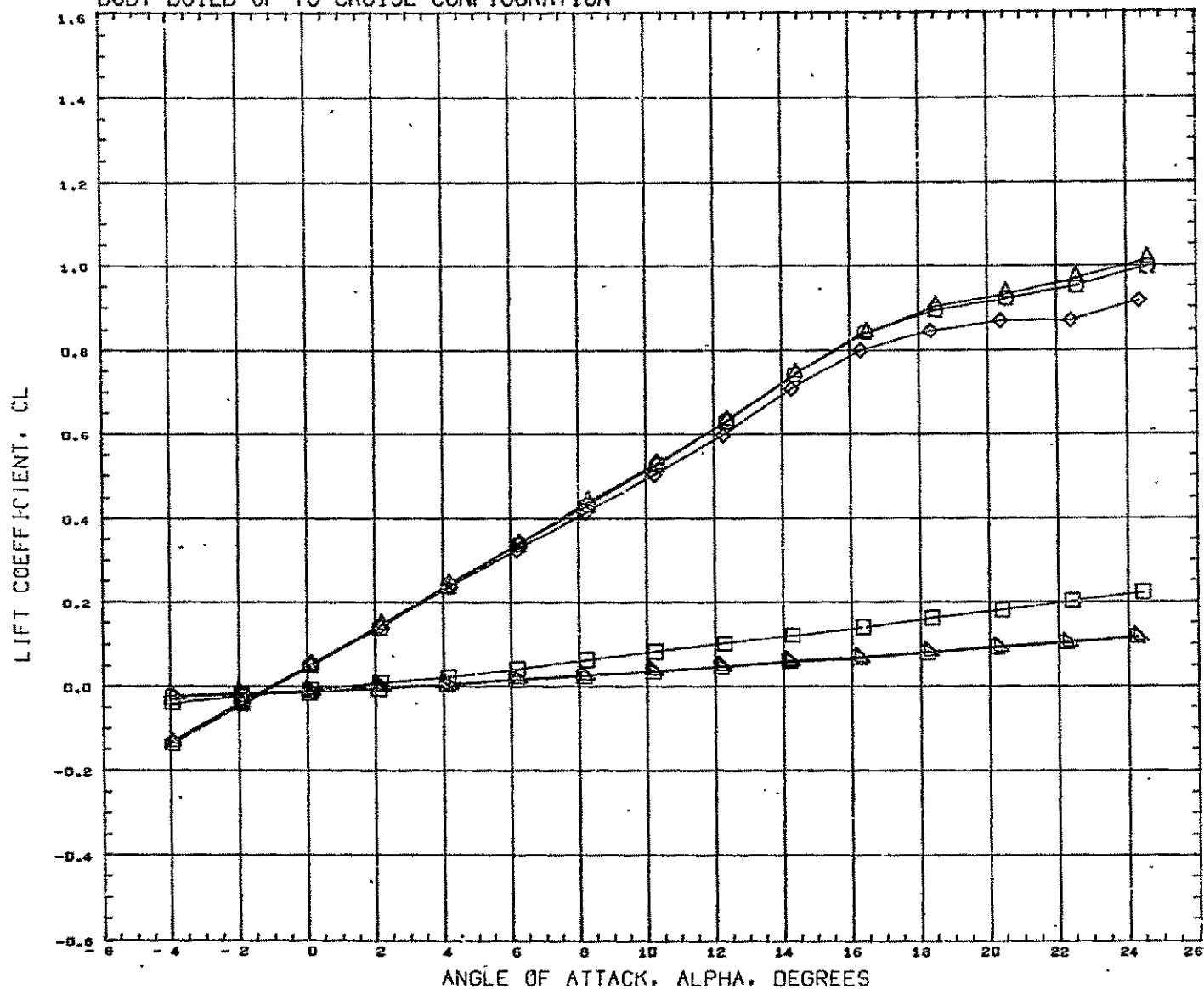
COMPARISON OF SELECTED W17 AND W10



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	WILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(BCV001)	○ GCLST 587-1 B19V7C4W10 B-15B TIE IN RUN	0.000	0.000	0.000	0.000	GREF	343.8704 33. IN
(BCV004)	△ GCLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.0623 IN.
						BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	9.0000 IN.
						ZMRP	3.9300 IN.
						SCALE	0.0175

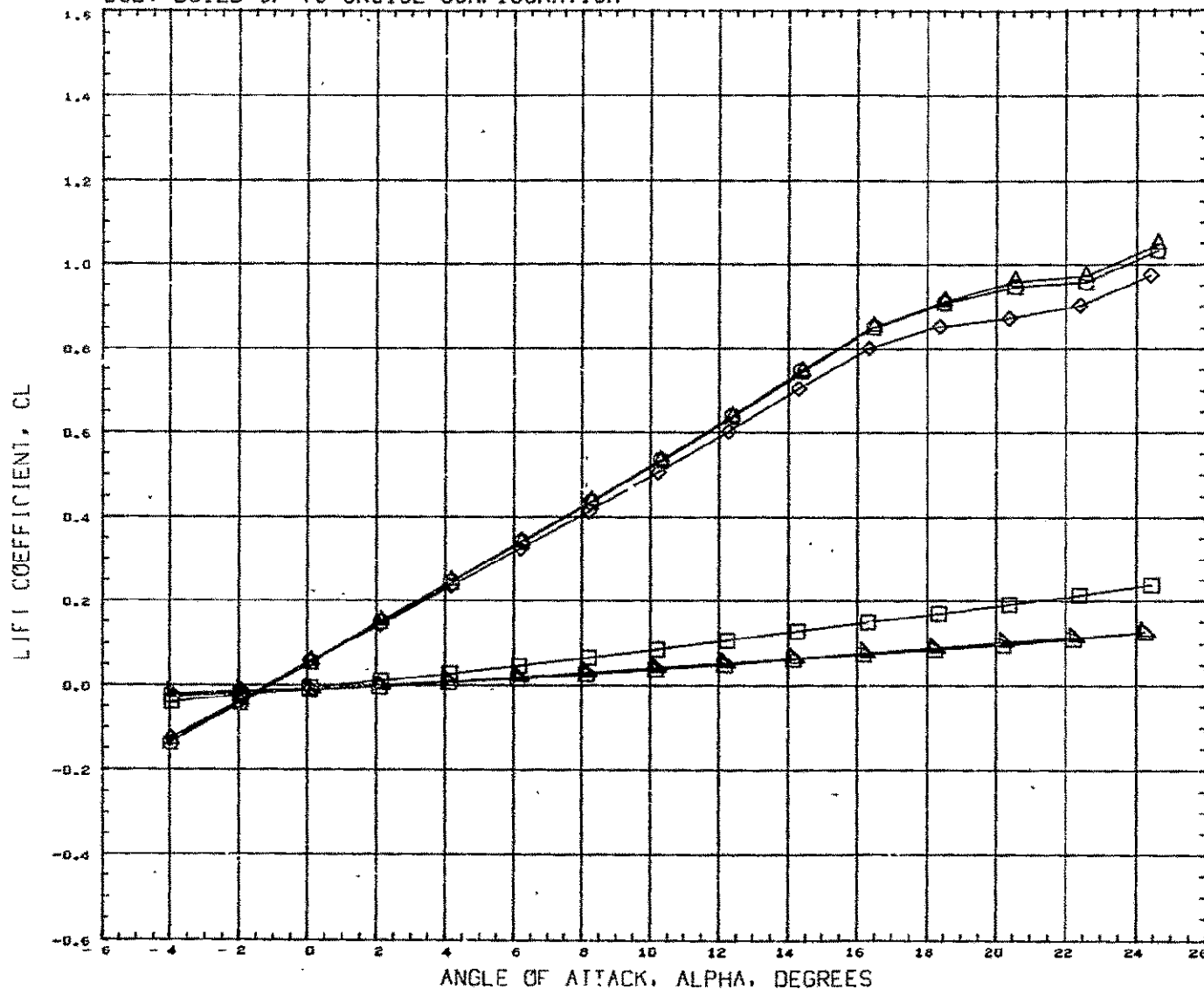
BETA 0.000

BODY BUILD-UP TO CRUISE CONFIGURATION



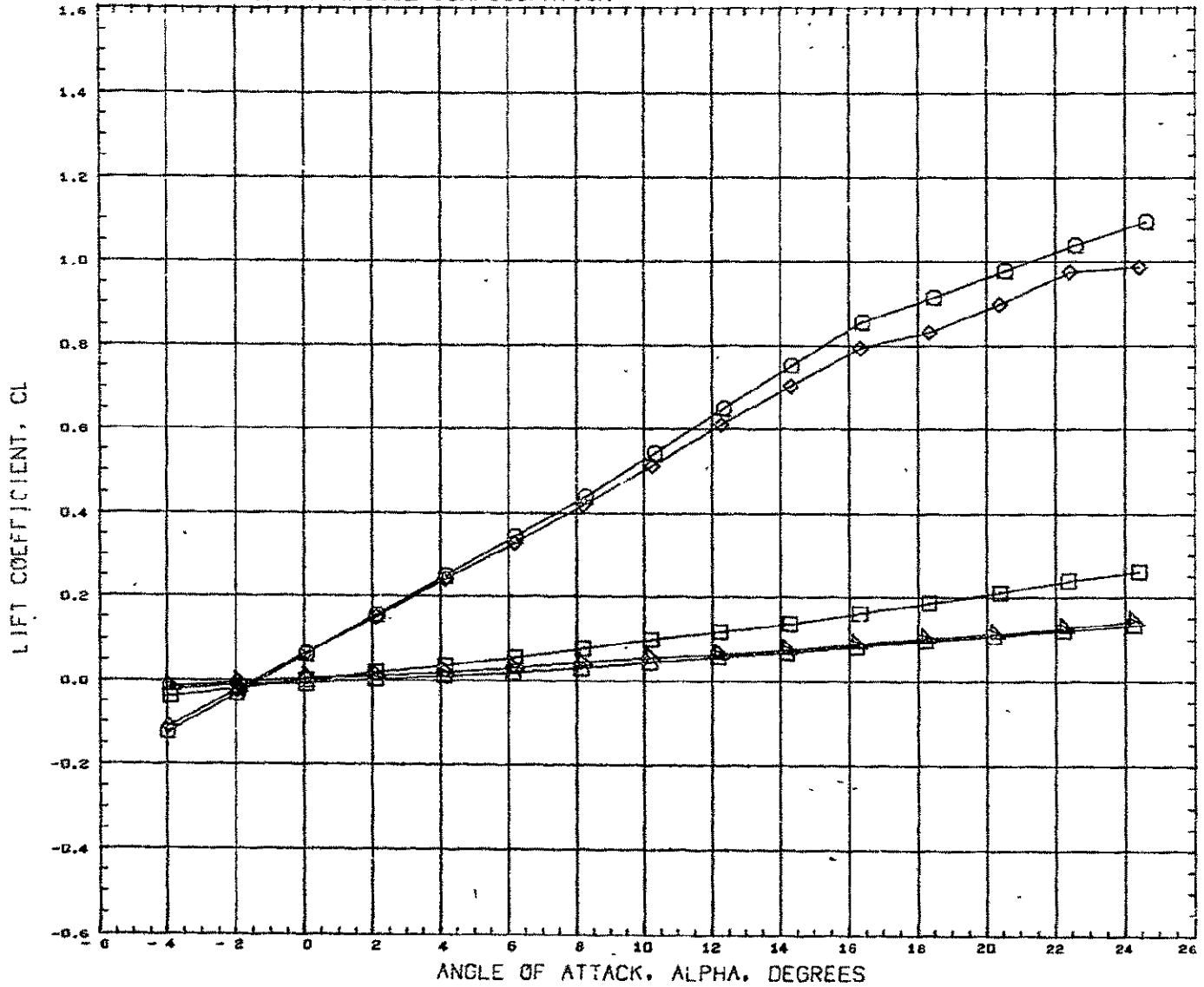
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.215C IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV007)	GDLST 587-1 B21X1V7C4	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000 IN.
(ACV009)	GDLST 587-1 B21X1					ZMRP	3.9380 IN.
BETA	0.000					SCALE	0.0175

BODY BUILD-UP TO CRUISE CONFIGURATION



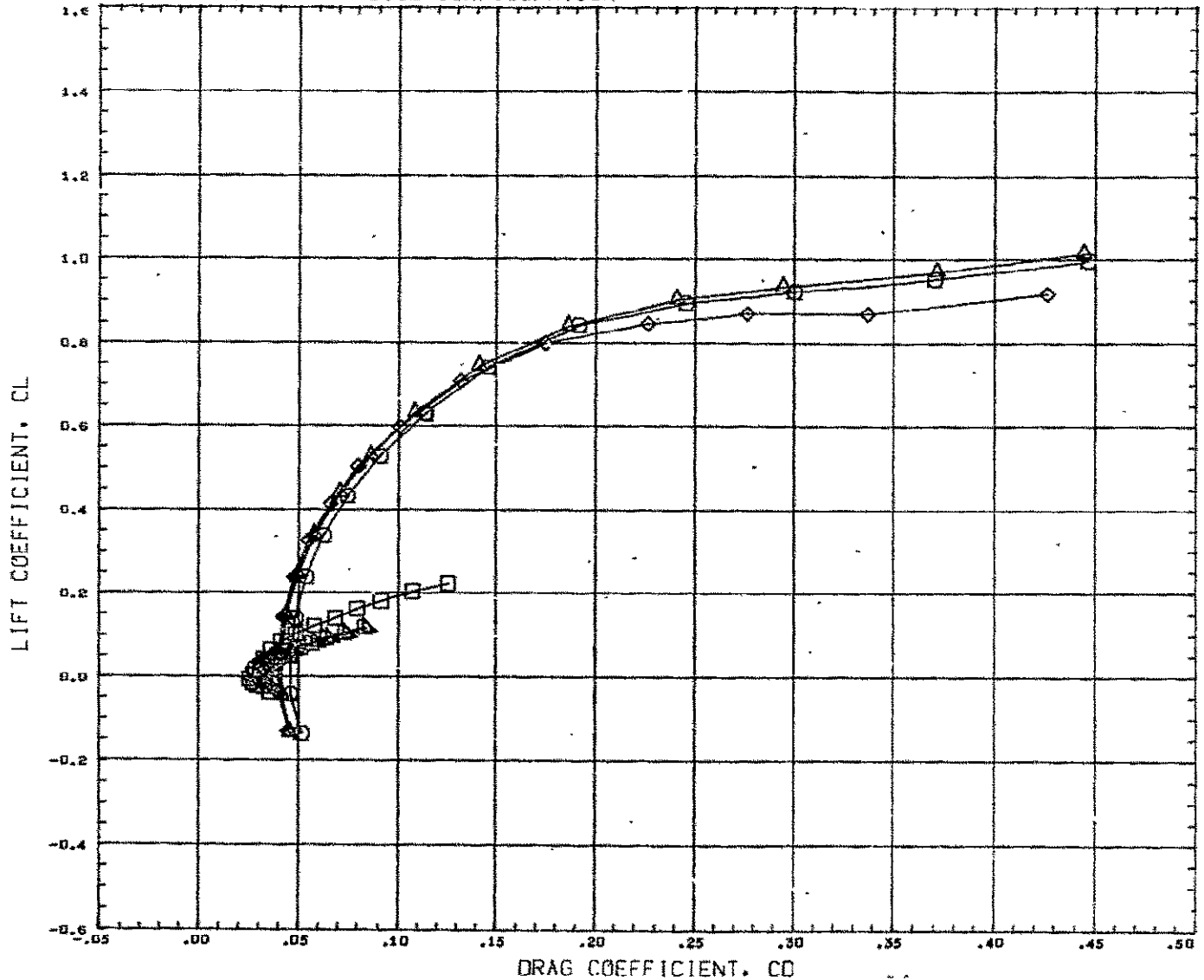
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILTRN	RUDDER	CANVTR	REFERENCE INFORMATION		
ACV015	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
ACV004	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.2150	IN.
ACV017	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
ACV007	GDLST 587-1 B21X1V7C4	0.000	0.000	0.000	0.000	YMRP	33.4300	IN.
ACV008	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000	IN.
ACV009	GDLST 587-1 B21X1					ZMRP	3.9380	IN.
	BETA 5.000					SCALE	0.0175	

BODY BUILD-UP TO CRUISE CONFIGURATION



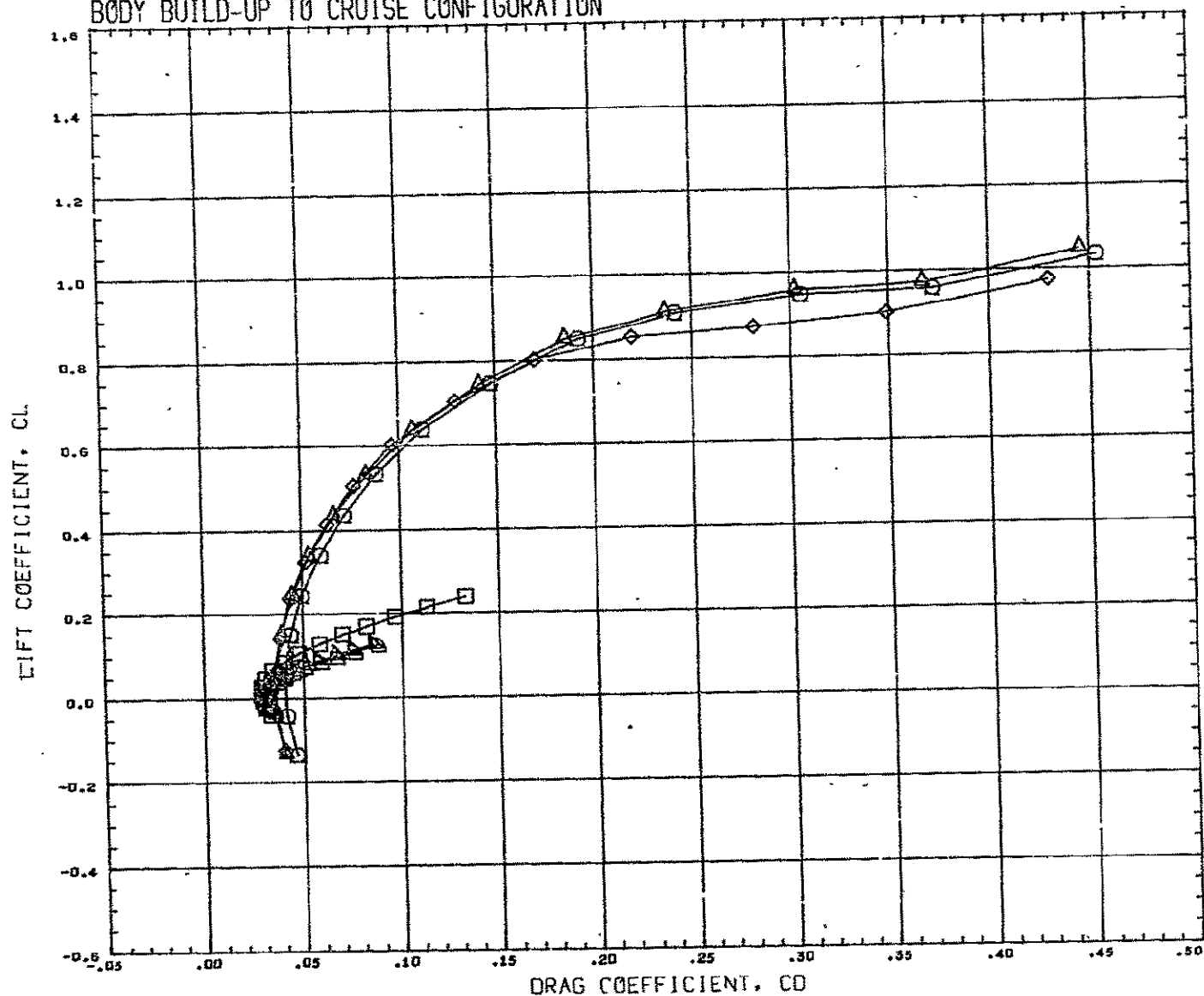
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACVD10,	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACVD04,	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000	LREF	15.215' IN.
(ACVD17,	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACVD07,	GDLST 587-1 B21X1V7C4	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
(ACVD08,	GDLST 587-1 B21X1V7	0.000	0.000	0.000	0.000	YMRP	0.0000 IN.
(ACVD09,	GDLST 587-1 B21X1			0.000		ZMRP	3.9380 IN.
	BETA 10.000					SCALE	0.0175

BODY BUILD-UP TO CRUISE CONFIGURATION



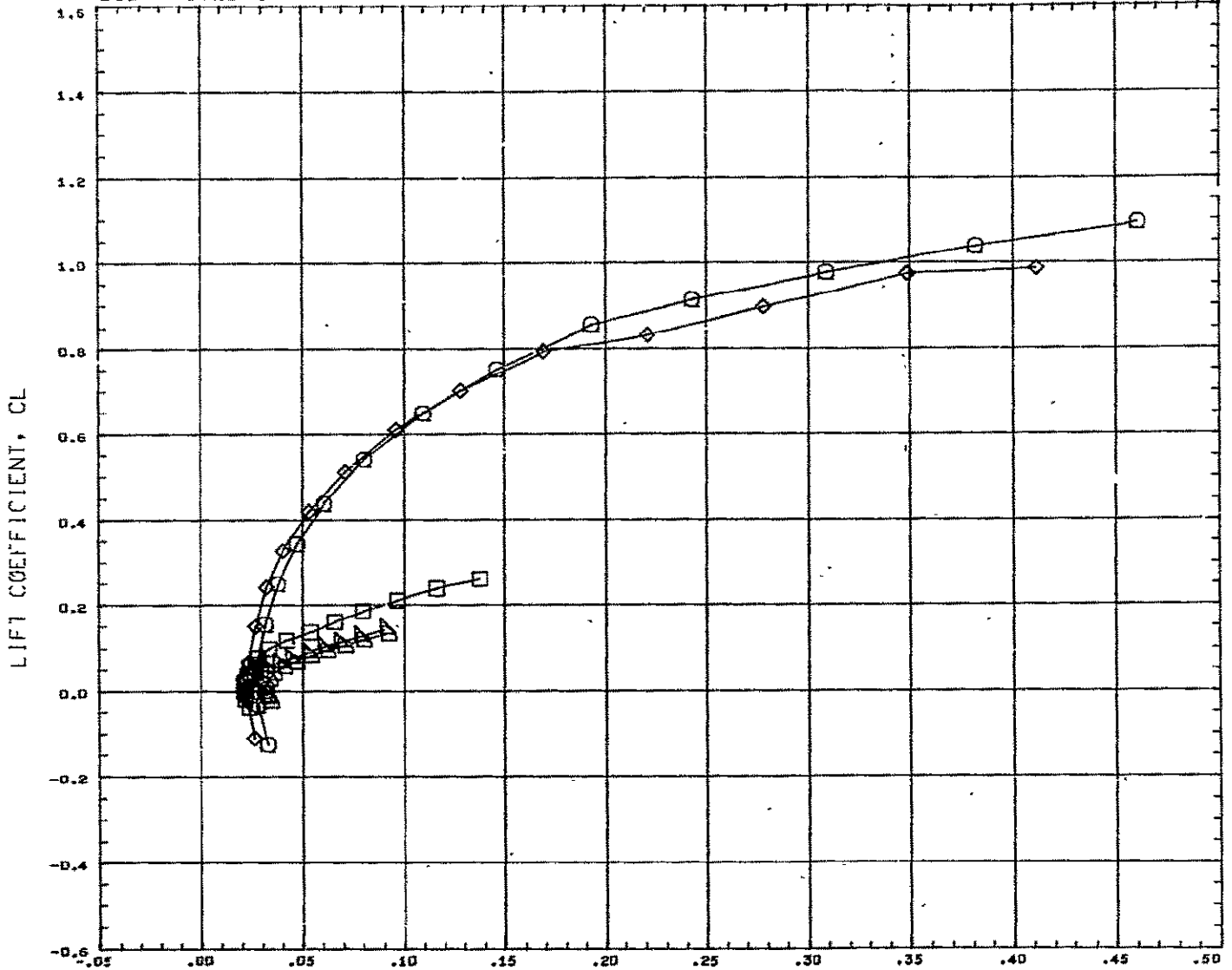
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILERON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	580.5001 SQ. IN
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	17.2179 IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XREF	52.4500 IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YREF	0.0000 IN.
(ACV009)	GDLST 587-1 B21X1			0.000		ZREF	4.5300 IN.
	BETA 0.000					SCALE	0.0175

BODY BUILD-UP TO CRUISE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV010,)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3001 SQ. IN
(ACV004,)	GDLST 587-1 B21X1V.C4W16	0.000	0.000	0.000	0.000	LREF	15 2120 IN.
(ACV017,)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV007,)	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360 IN.
(ACV008,)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000 IN.
(ACV009,)	GDLST 587-1 B21X1					ZMRP	3.9380 IN.
						SCALE	0.0173
BETA	3.000						

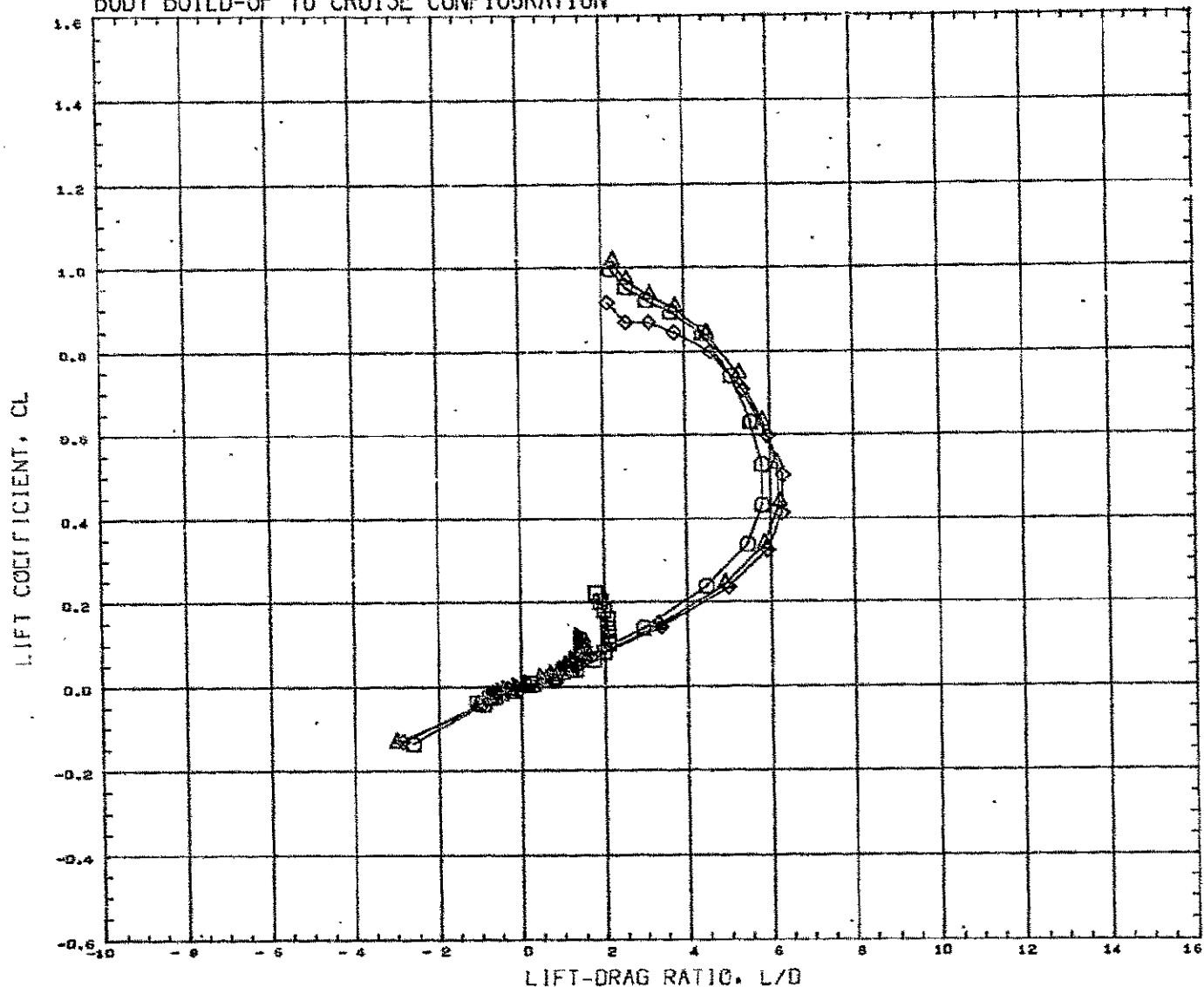
BODY BUILD-UP TO CRUISE CONFIGURATION



DRAG COEFFICIENT, CD

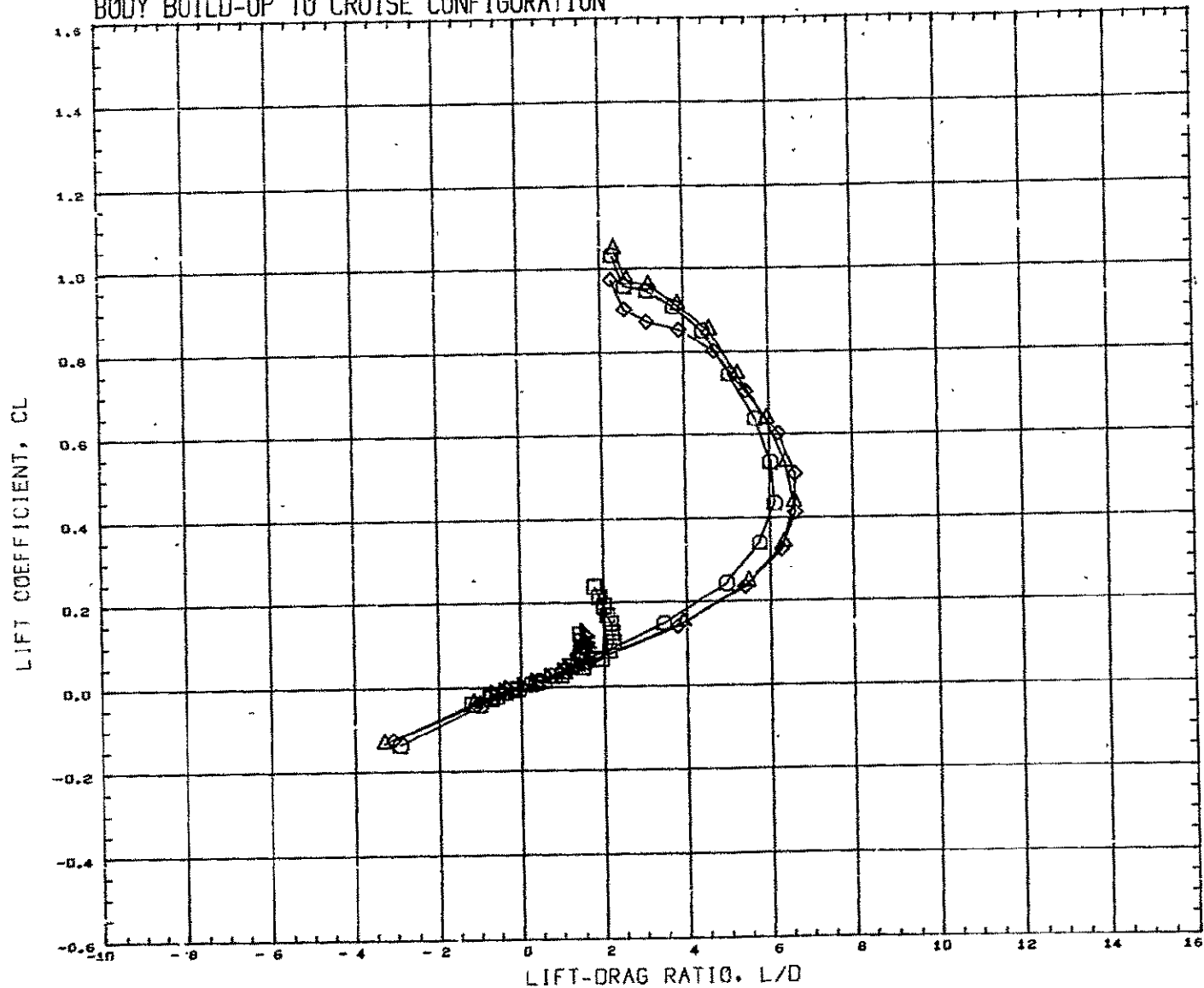
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
ACV01D	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
ACV004	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000	LREF	15.215	IN.
ACV017	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
ACV007	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360	IN.
ACV008	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000	IN.
ACV009	GDLST 587-1 B21X1			0.000		ZMRP	3.9380	IN.
	BETA 10.000					SCALE	0.0175	

BODY BUILD-UP TO CRUISE CONFIGURATION



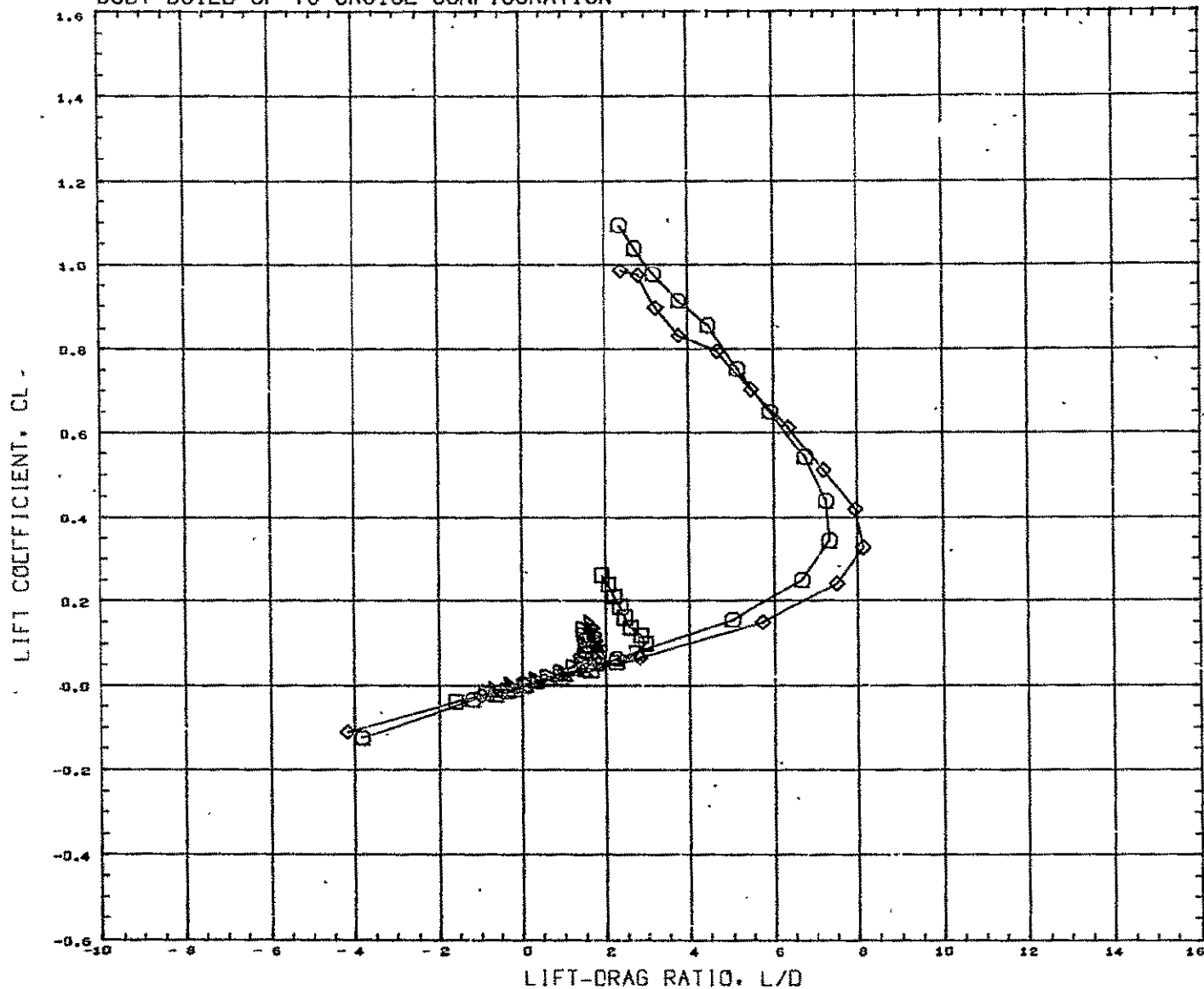
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
1ACV010	○	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
1ACV004	△	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LRGF	15.2150	IN.
1ACV017	◇	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4000	IN.
1ACV007	×	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360	IN.
1ACV008	□	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000	IN.
1ACV009	◇	GDLST 587-1 B21X1					ZMRP	3.9380	IN.
		BETA 0.000					SCALE	0.0175	

BODY BUILD-UP TO CRUISE CONFIGURATION



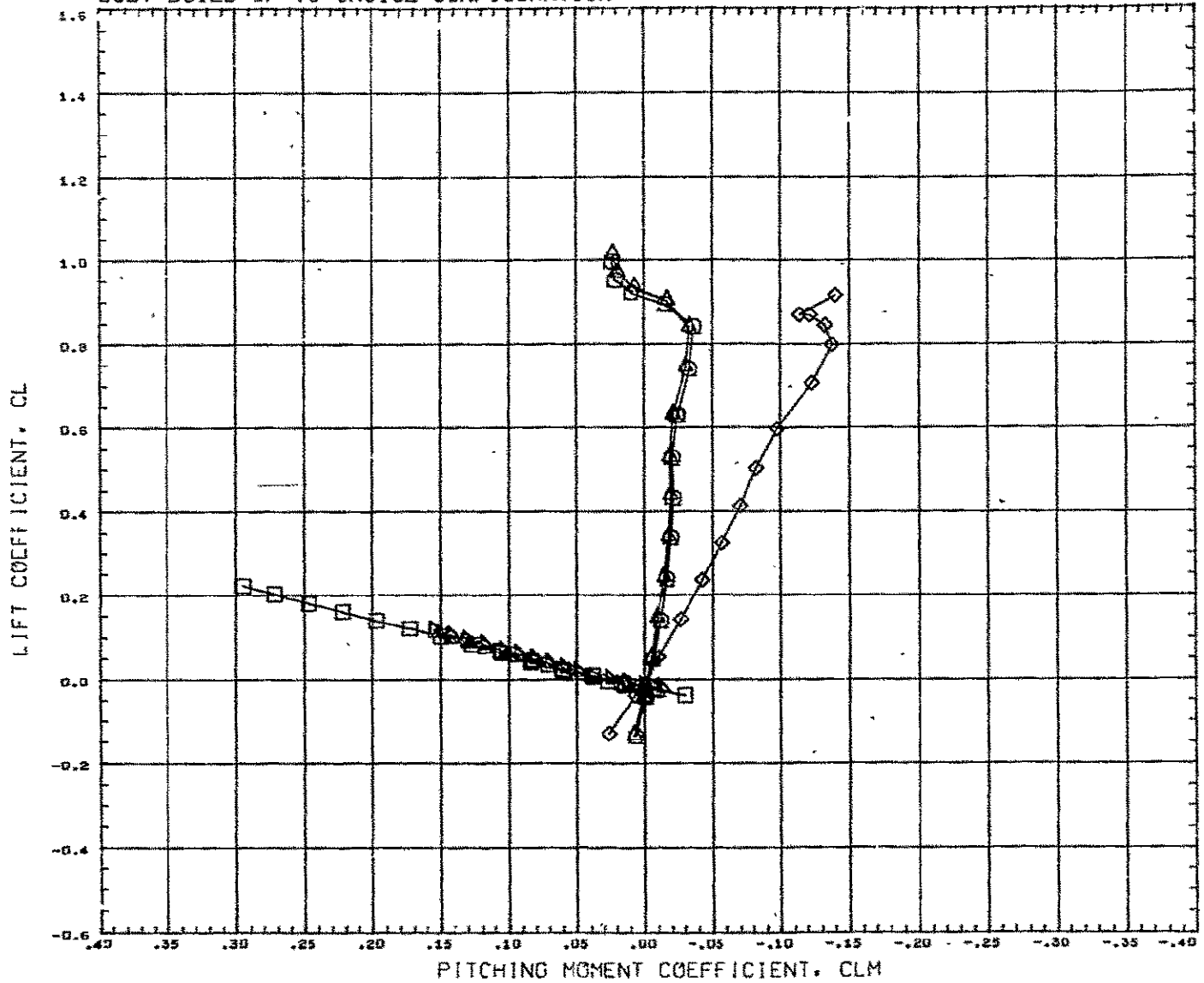
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTB	REFERENCE INFORMATION	
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	23.4360 IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000 IN.
(ACV009)	GDLST 587-1 B21X1					ZMRP	3.9380 IN.
	BETA 5.000					SCALE	0.0175

BODY BUILD-UP TO CRUISE CONFIGURATION



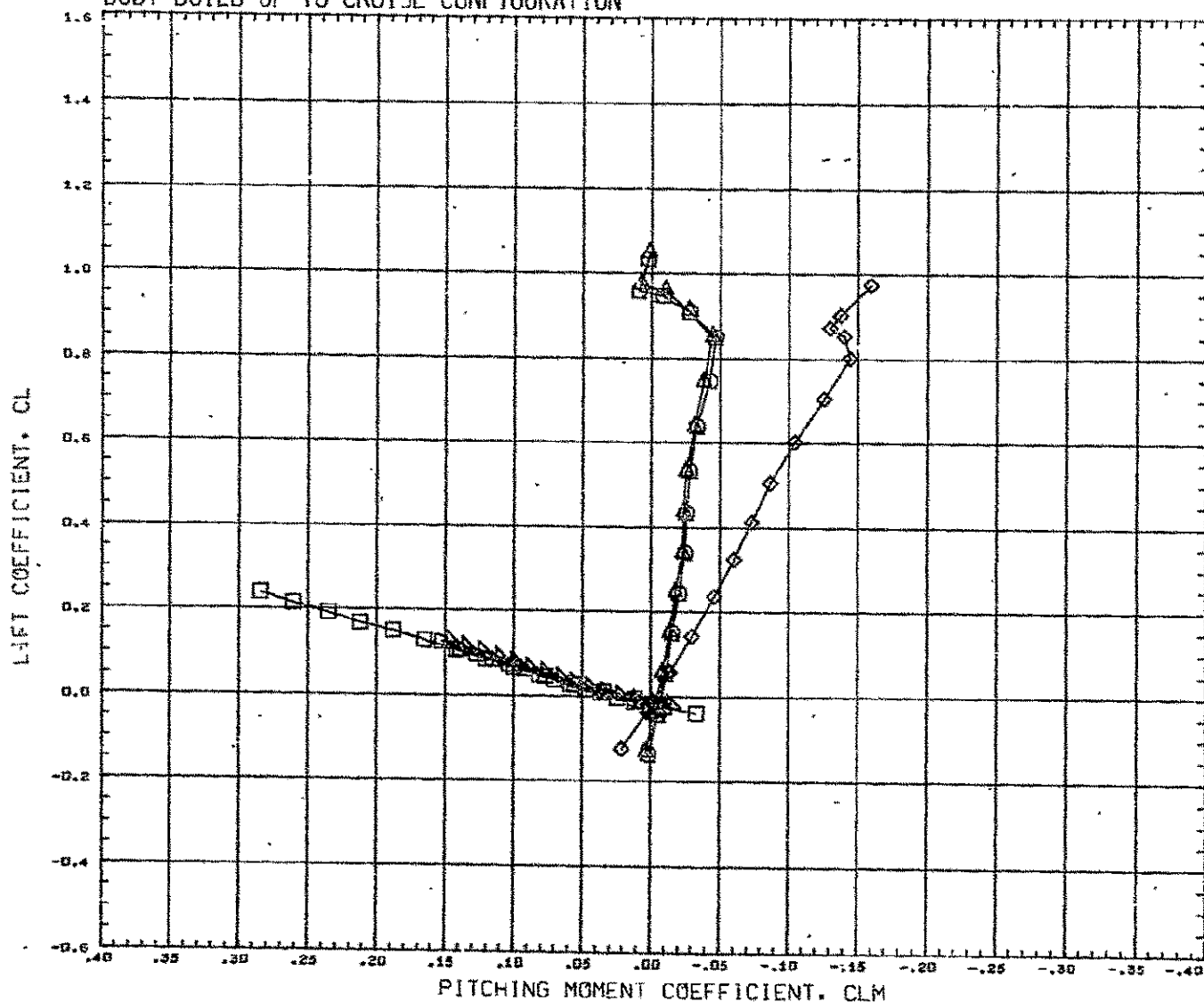
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	300.3004 SQ. IN
(ACV004)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XHRF	33.4360 IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YHRF	0.0000 IN.
(ACV009)	GDLST 587-1 B21X1			0.000		ZHRF	3.9380 IN.
	BETA 10.000					SCALE	0.0175

BODY BUILD-UP TO CRUISE CONFIGURATION



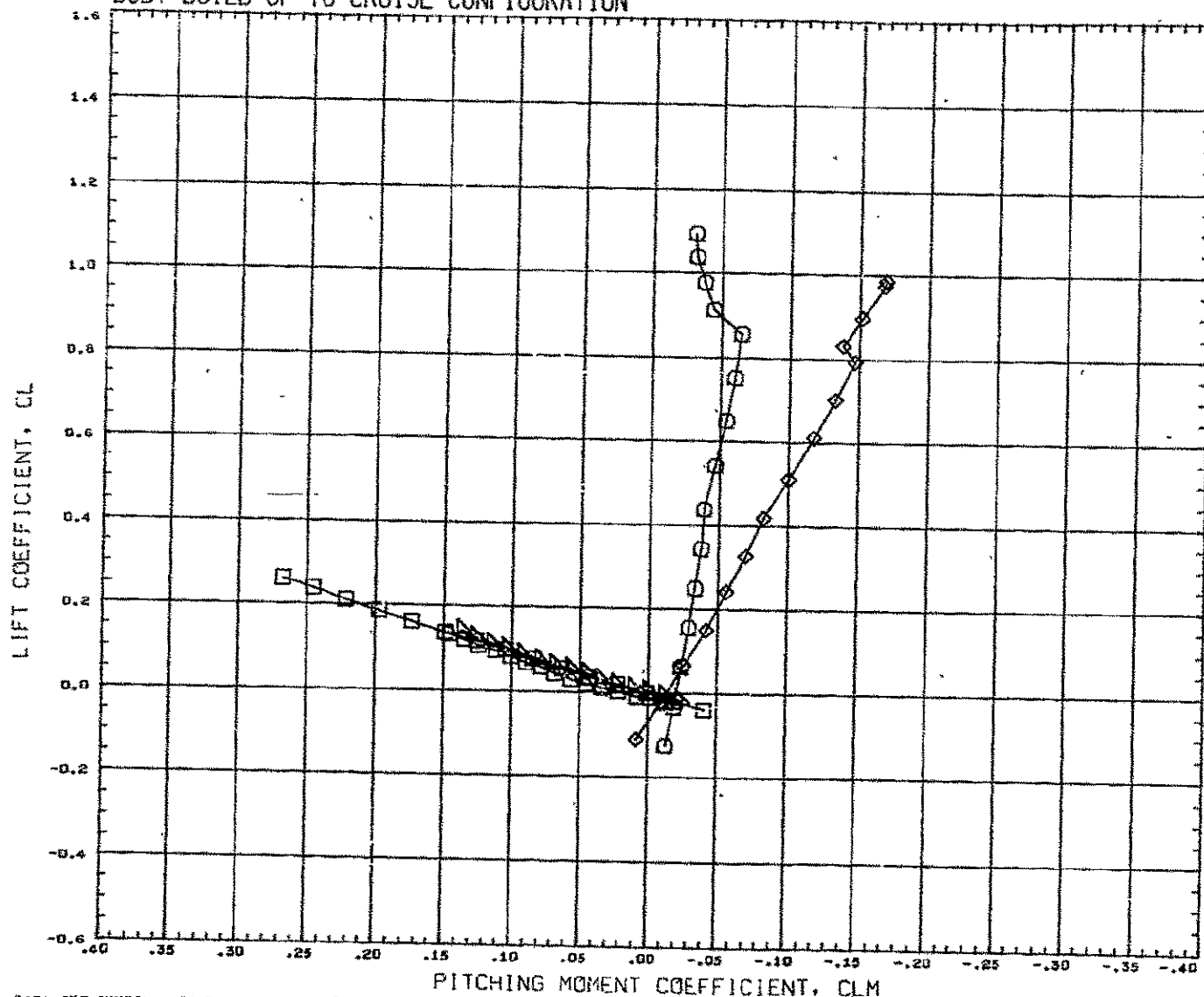
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILERON	RUDDER	CANVTR	REFERENCE INFORMATION	
[ACV010]	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
[ACV004]	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.215 IN.
[ACV017]	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
[ACV007]	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360 IN.
[ACV008]	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000 IN.
[ACV009]	GDLST 587-1 B21X1					ZMRP	3.9380 IN.
BETA	0.000					SCALE	0.0175

BODY BUILD-UP TO CRUISE CONFIGURATION



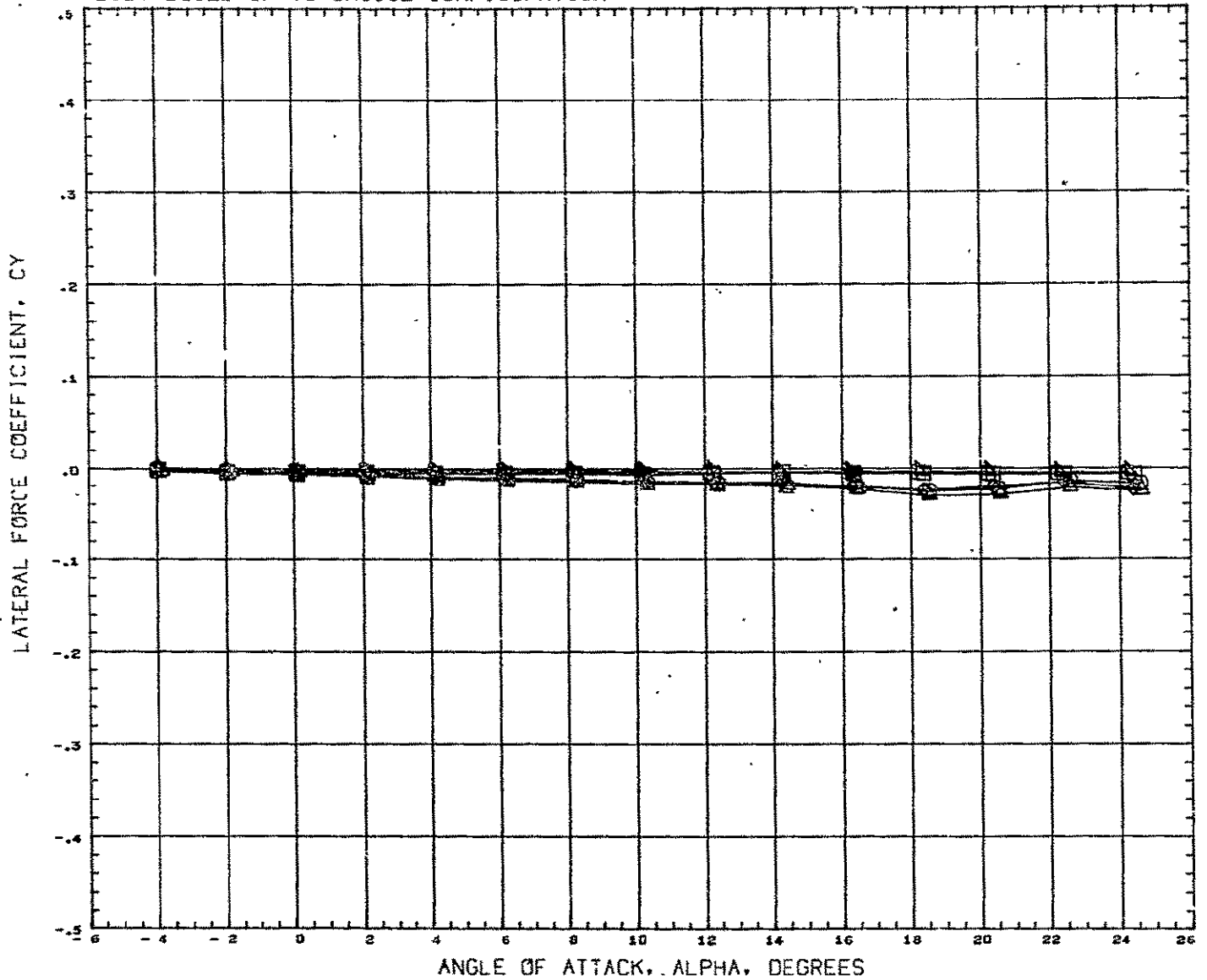
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILROH	RUDDER	CANVT	REFERENCE INFORMATION
IACV010	6DLST 567-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
IACV004	6DLST 567-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF 15.215% IN.
IACV017	6DLST 567-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF 38.4400 IN.
IACV007	6DLST 567-1 B21X1V7C4	0.000	0.000	0.000	0.000	XMRF 35.4360 IN.
IACV008	6DLST 567-1 B21X1V7	0.000	0.000	0.000	0.000	YMRF 0.0000 IN.
IACV009	6DLST 567-1 B21X1	0.000	0.000	0.000	0.000	ZMRF 3.9380 IN.
BETA	5.000					SCALE 0.0175

BODY BUILD-UP TO CRUISE CONFIGURATION



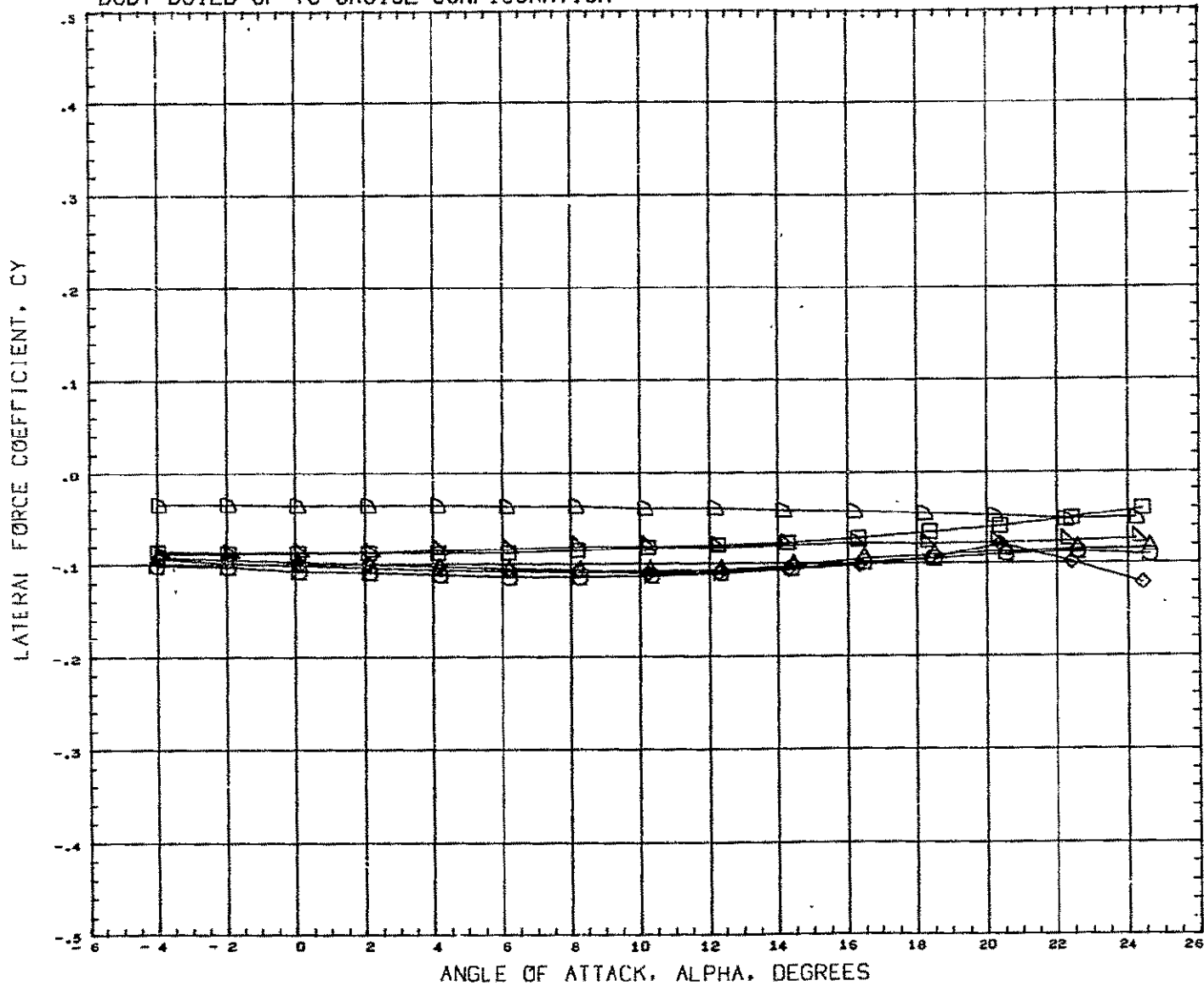
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
(ACV004)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000	LREF	55.2152	IN.
(ACV017)	GDLST 587-1 B21X1V7W10 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XHRP	33.4360	IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000	0.000	YHRP	0.0000	IN.
(ACV009)	GDLST 587-1 B21X1			0.000		ZHRP	5.9360	IN.
BETA	10.000					SCALE	0.0175	

BODY BUILD-UP TO CRUISE CONFIGURATION



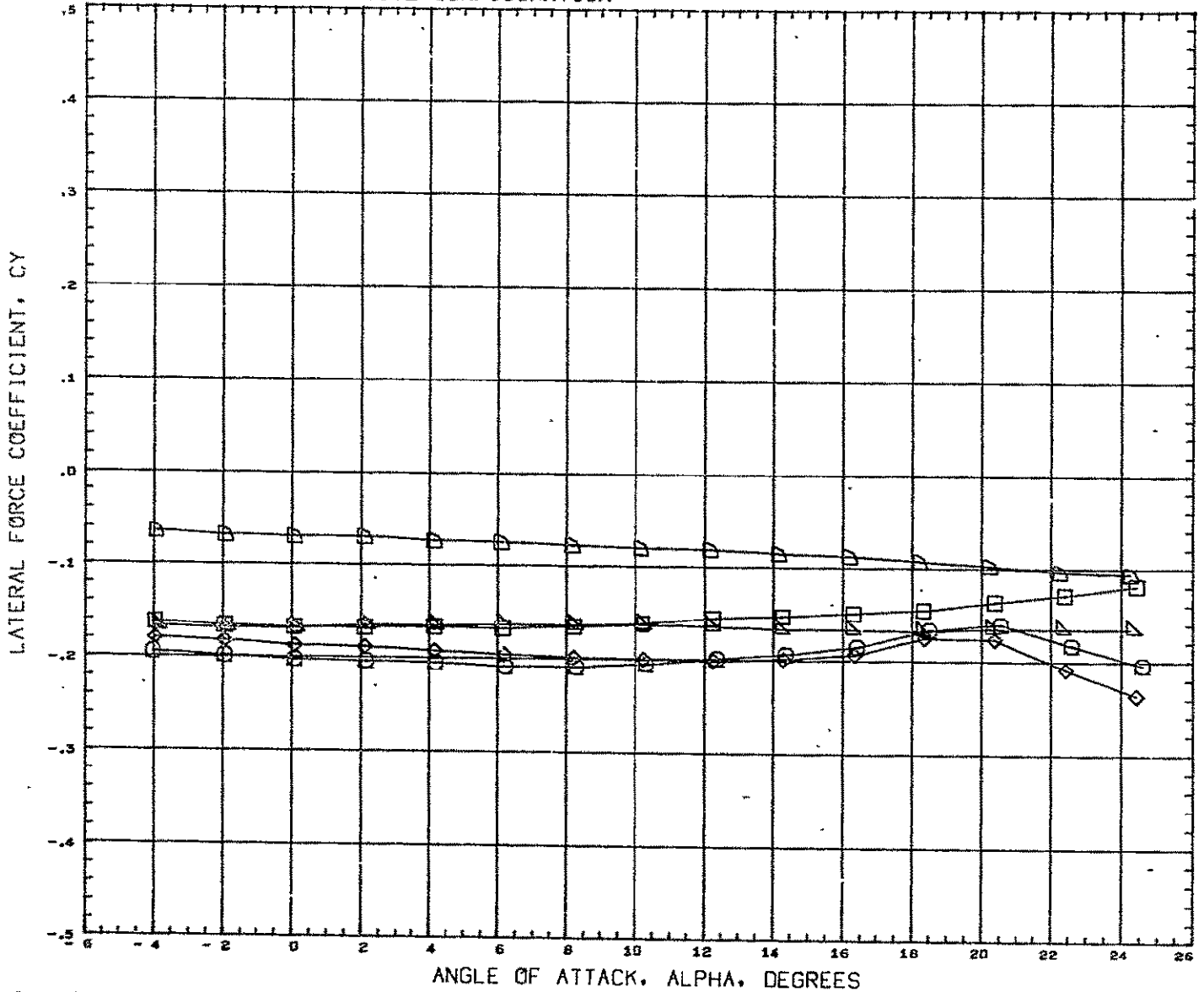
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV010)	GDLST 587-1 B21X1V7C4E3W16	0.000	0.000	0.000	0.000	SREF	300.3004	SQ. IN
(ACV004)	GDLST 587-1 B21X1V7.4W16	0.000	0.000	0.000	0.000	LREF	15.215"	IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACV007)	GDLST 587-1 B21X1V7C4	0.000	0.000	0.000	0.000	XMRP	35.4360	IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000	IN.
(ACV009)	GDLST 587-1 B21X1					ZMRP	3.9360	IN.
	BETA 0.000					SCALE	0.0175	

BODY BUILD-UP TO CRUISE CONFIGURATION



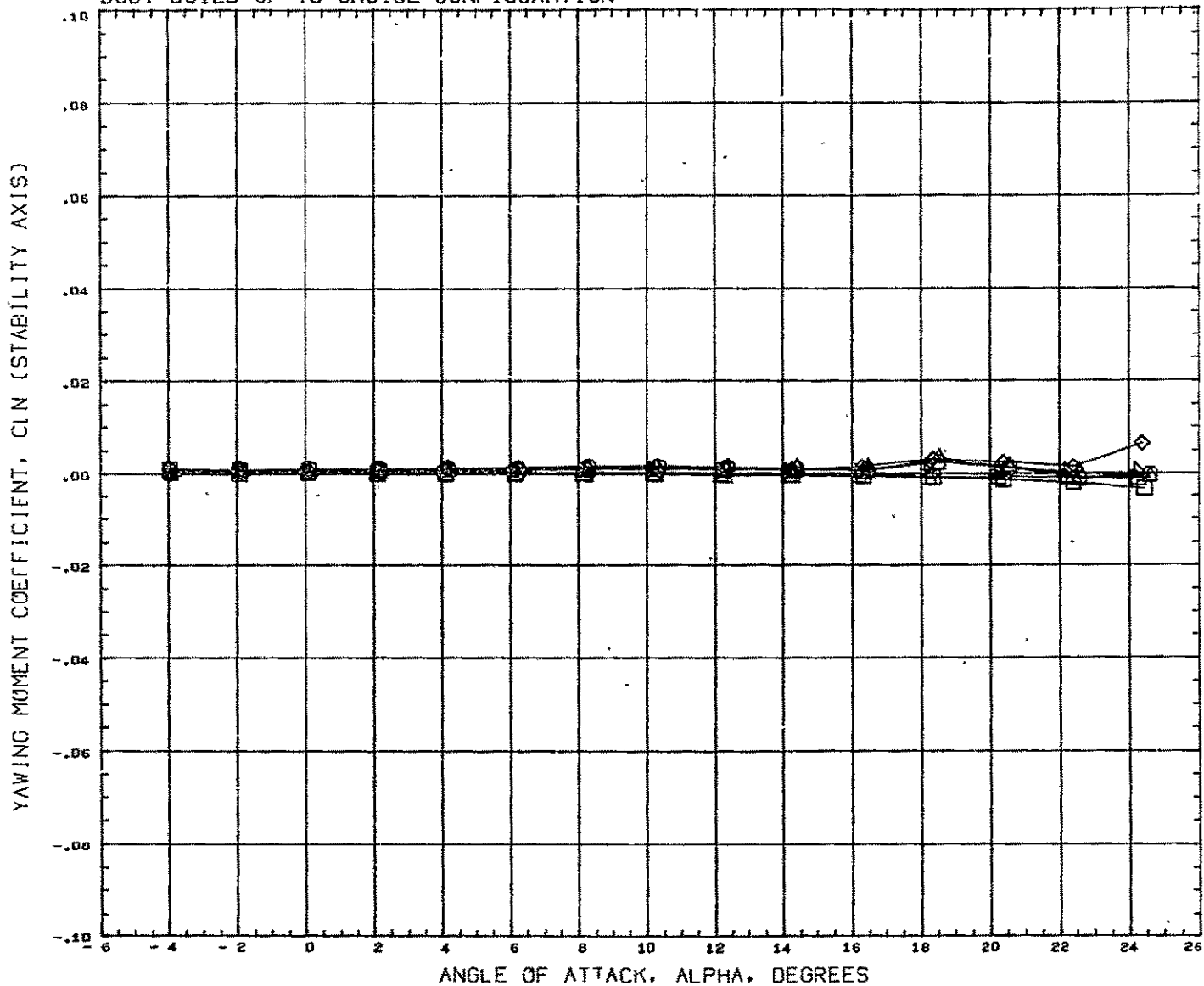
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV010)	6DLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
(ACV004)	6DLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.2155	IN.
(ACV017)	6DLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACV007)	6DLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360	IN.
(ACV008)	6DLST 587-1 B21X1V7			0.000		YMRP	0.0000	IN.
(ACV009)	6DLST 587-1 B21X1			0.000		ZMRP	3.9380	IN.
BETA	5.000					SCALE	0.0175	

BODY BUILD-UP TO CRUISE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILSON	RUDDER	CANVTR	REFERENCE INFORMATION		
:ACVD10/	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
:ACVD04/	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000	LREF	15.2150	IN.
:ACVD17/	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BR&F	30.4400	IN.
:ACVD07/	GDLST 587-1 B21X1V7C4	0.000	0.000	0.000	0.000	XMRP	33.4360	IN.
:ACVD08/	GDLST 587-1 B21X1V7	0.000	0.000	0.000	0.000	YMRP	0.0000	IN.
:ACVD09/	GDLST 587-1 B21X1	0.000	0.000	0.000	0.000	ZMRP	3.9380	IN.
BETA	10.000					SCALE	0.0175	

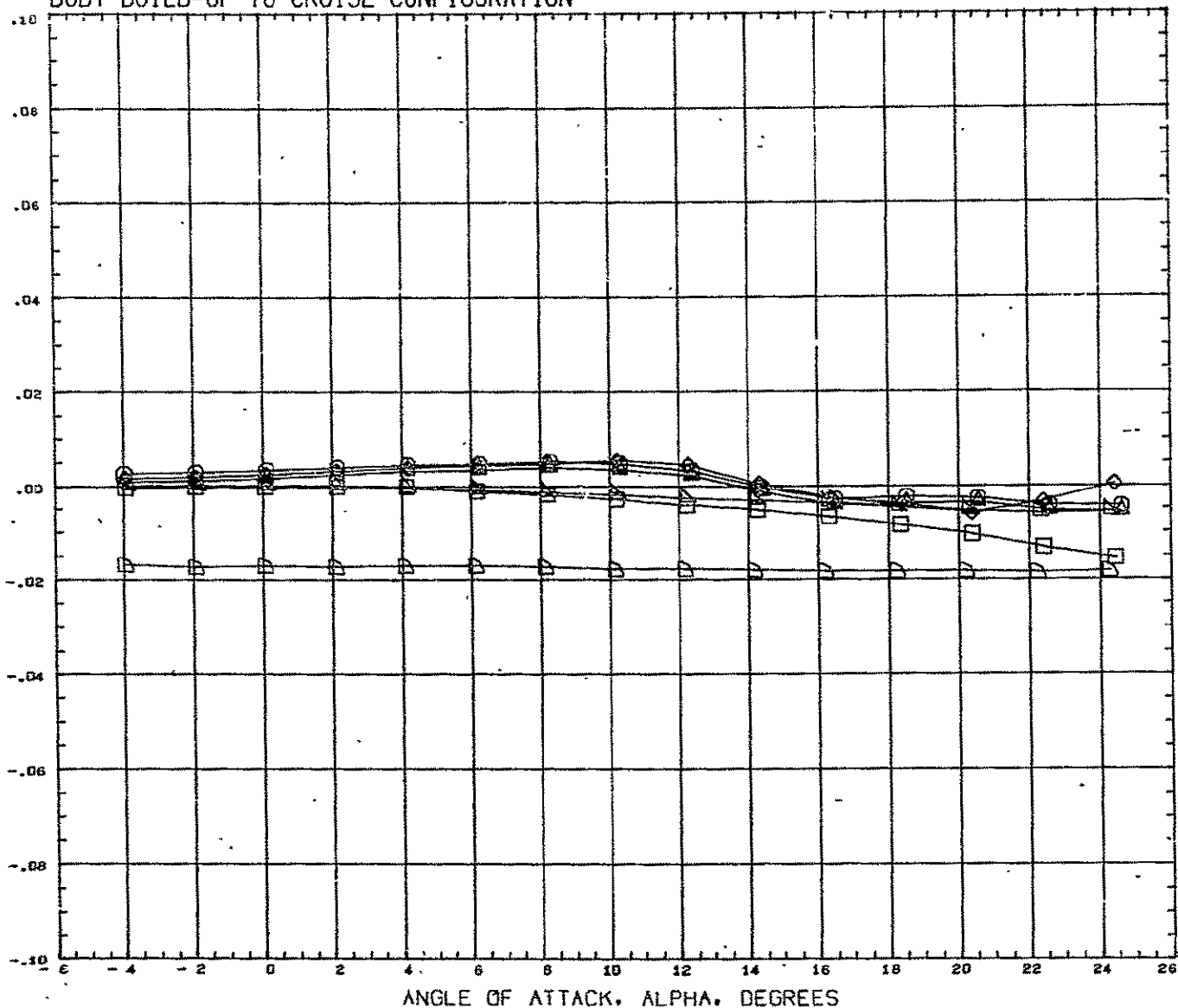
BODY BUILD-UP TO CRUISE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
1ACV010	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
1ACV004	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
1ACV017	GDLST 587-1 B21X1V7W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
1ACV007	GDLST 587-1 B21X1V7C4 CANARD OFF	0.000	0.000	0.000	0.000	XMRP	33.4260 IN.
1ACV008	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000 IN.
1ACV009	GDLST 587-1 B21X1			0.000		ZMRP	3.9300 IN.
BETA	0.000					SCALE	0.0175

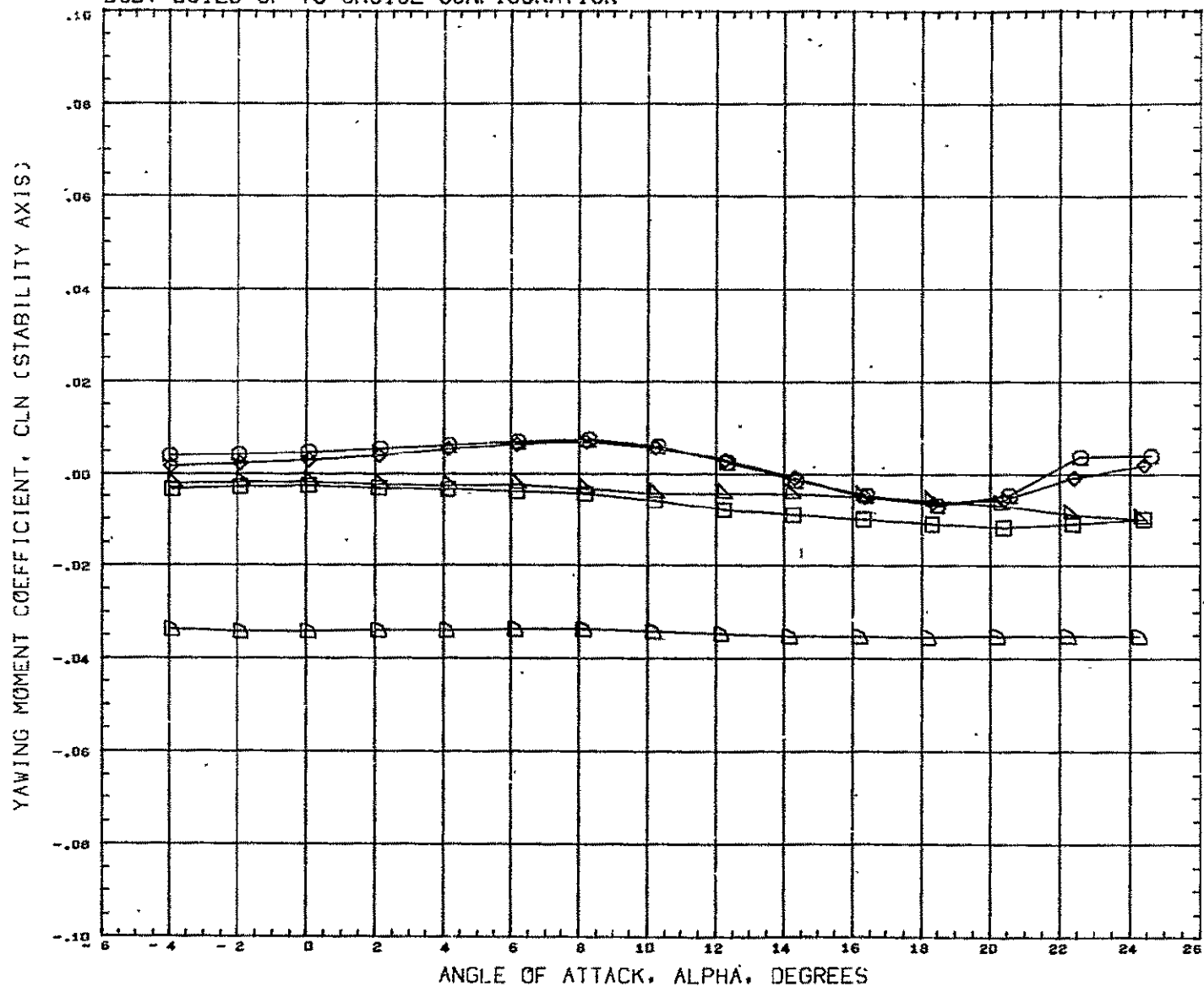
BODY BUILD-UP TO CRUISE CONFIGURATION

YAWING MOMENT COEFFICIENT, CLN (STABILITY AXIS)



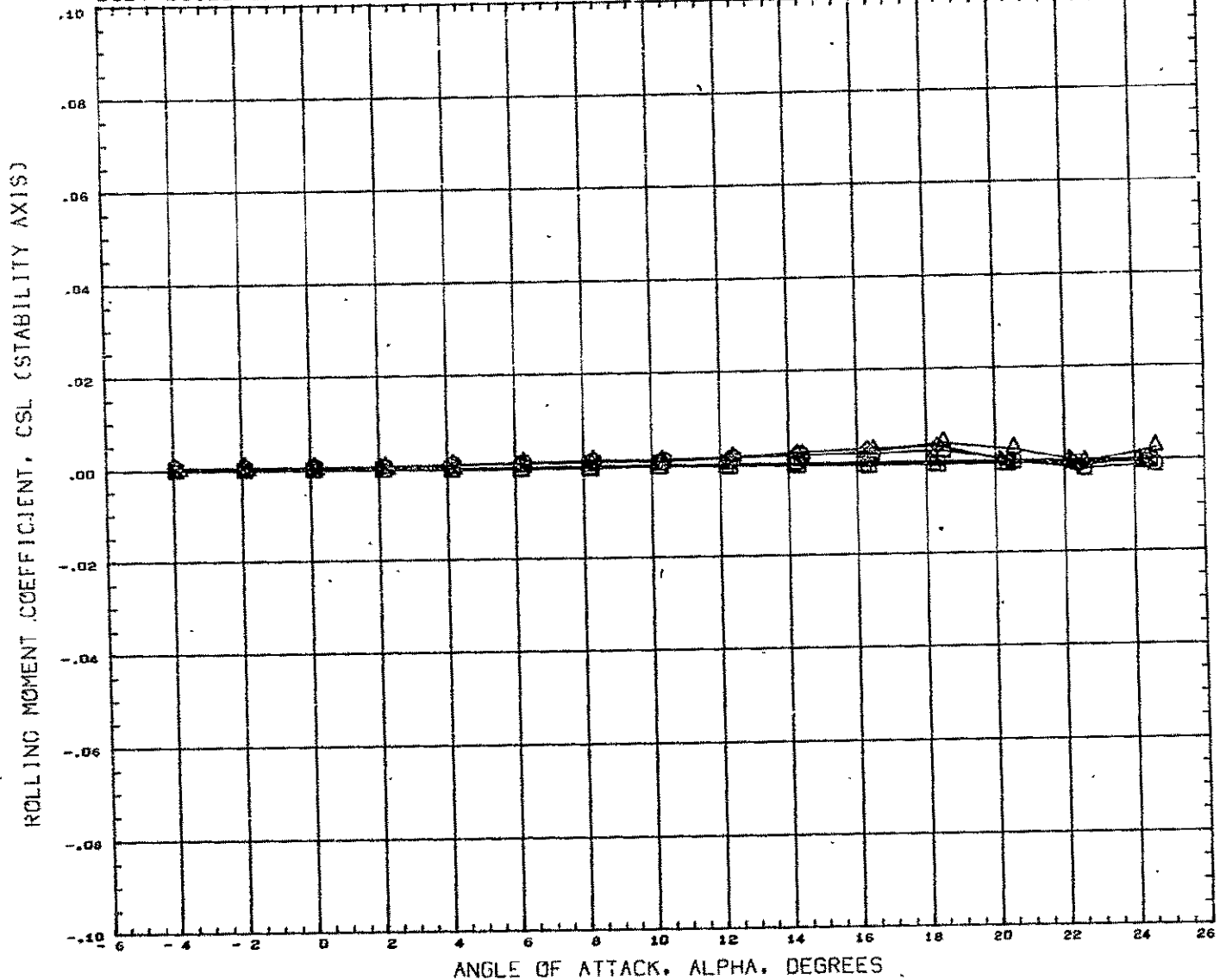
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AIRCON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.2159	IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360	IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000	IN.
(ACV009)	GDLST 587-1 E21X1					ZMRP	3.9380	IN.
BETA	5.000					SCALE	0.0175	

BODY BUILD-UP TO CRUISE CONFIGURATION



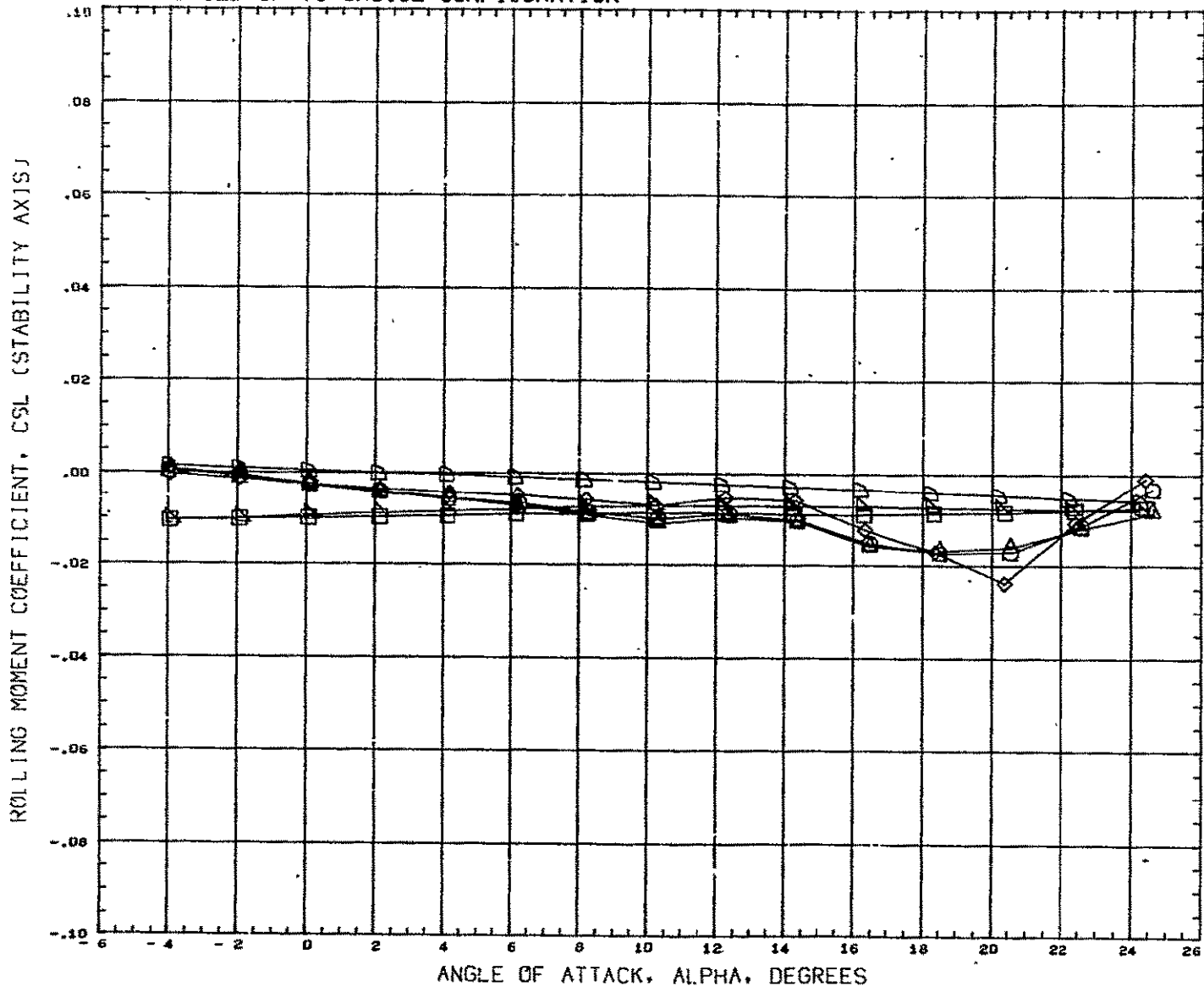
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
(ACV004)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000	LREF	15.2110	IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	SREF	30.4400	IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360	IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000	IN.
(ACV009)	GDLST 587-1 B21X1					ZMRP	3.9380	IN.
	BETA 10.000					SCALE	0.0175	

BODY BUILD-UP TO CRUISE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.2152 IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4490 IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360 IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000 IN.
(ACV009)	GDLST 587-1 B21X1			0.000		ZMRP	3.9880 IN.
	BETA 0.000					SCALE	0.0175

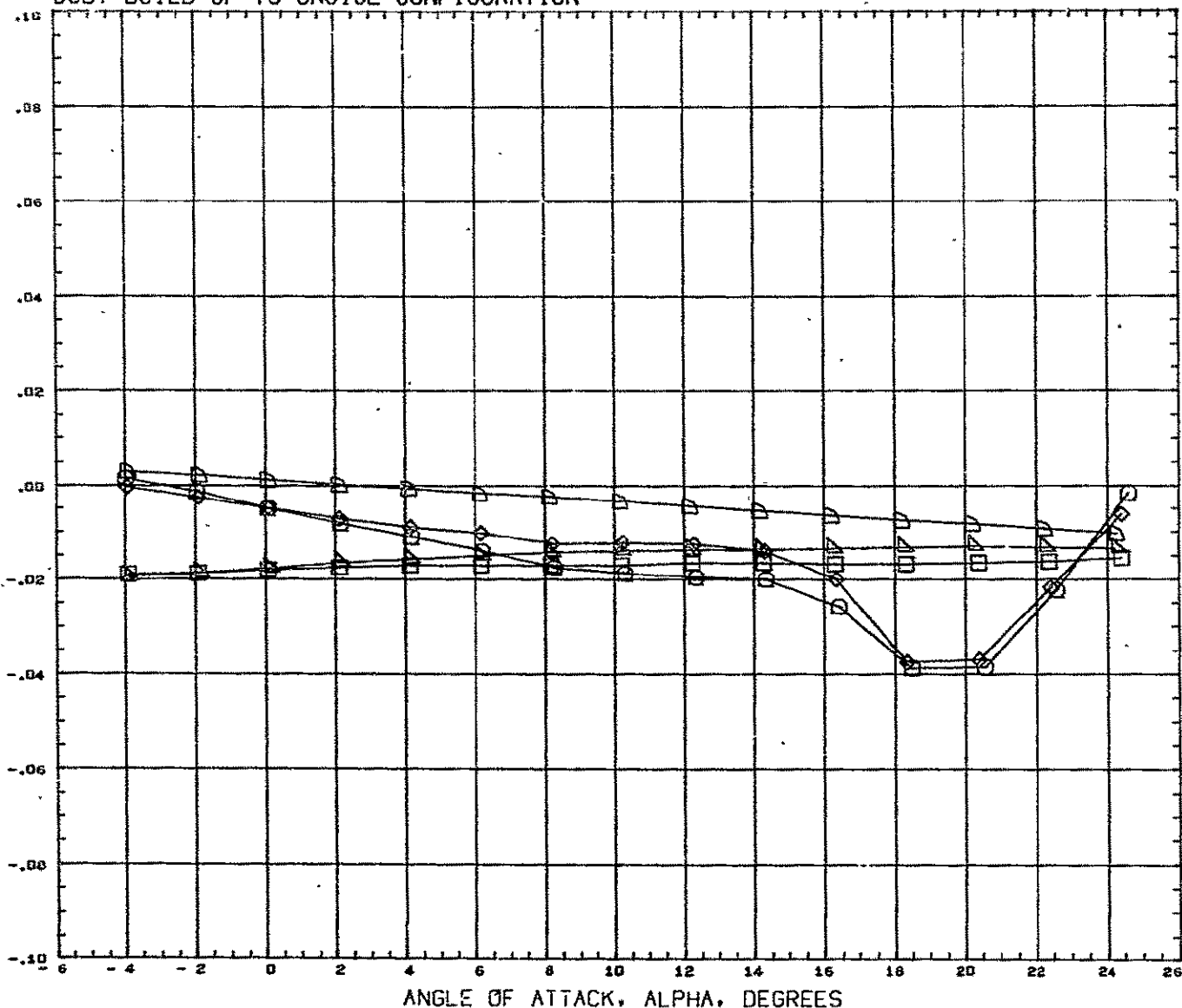
BODY BUILD-UP TO CRUISE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.30C4 SQ. IN
(ACV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360 IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000 IN.
(ACV009)	GDLST 587-1 B21X1			0.000		ZMRP	3.9380 IN.
BETA	5.000					SCALE	0.0175

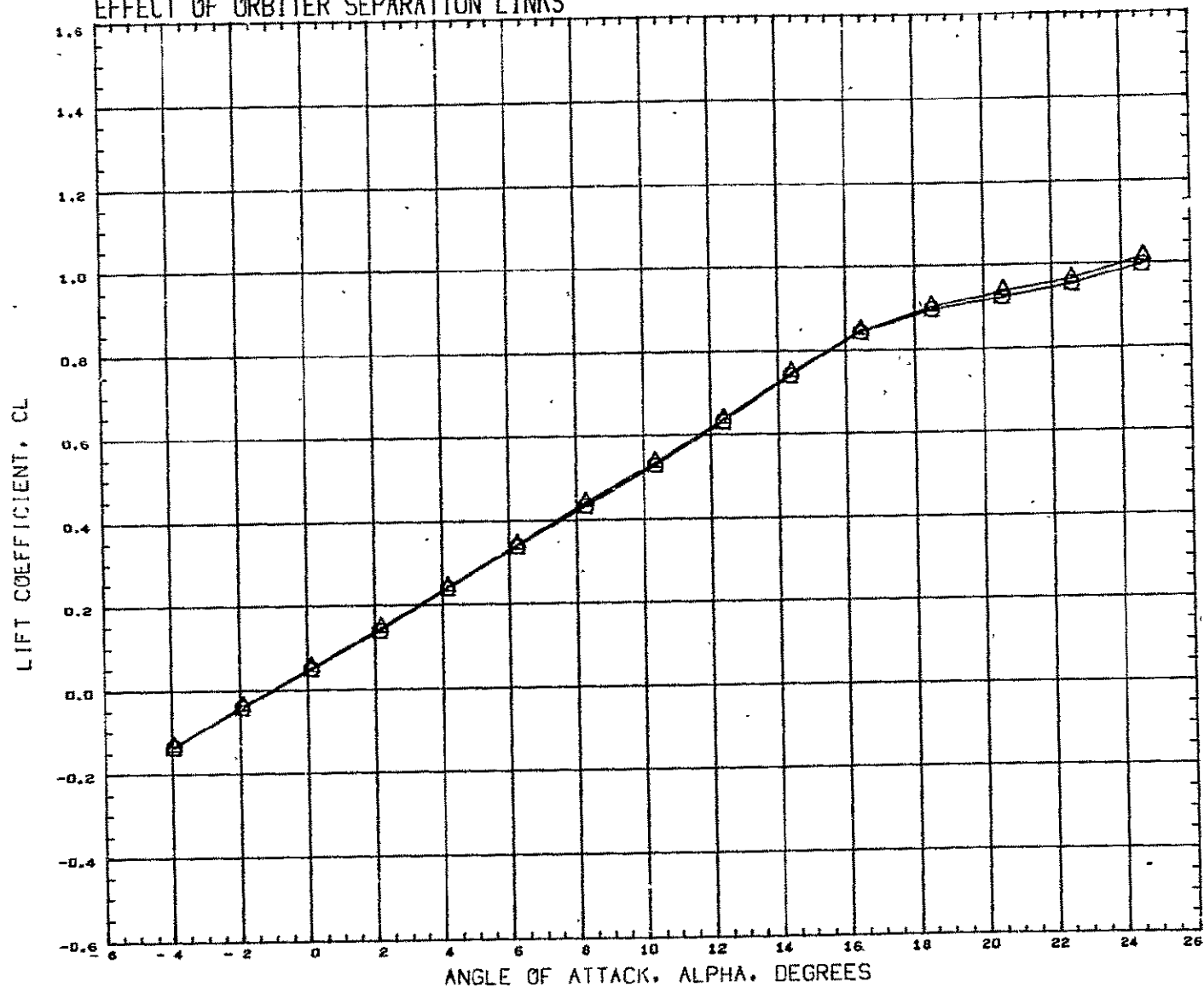
BODY BUILD-UP TO CRUISE CONFIGURATION

ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV004)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000	LREF	15.2155 IN.
(ACV017)	GDLST 587-1 B21X1V7W16 CANARD OFF	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV007)	GDLST 587-1 B21X1V7C4			0.000	0.000	XMRP	33.4360 IN.
(ACV008)	GDLST 587-1 B21X1V7			0.000		YMRP	0.0000 IN.
(ACV009)	GDLST 587-1 B21X1			0.000		ZMRP	3.9380 IN.
	BETA 10.000					SCALE	0.0175

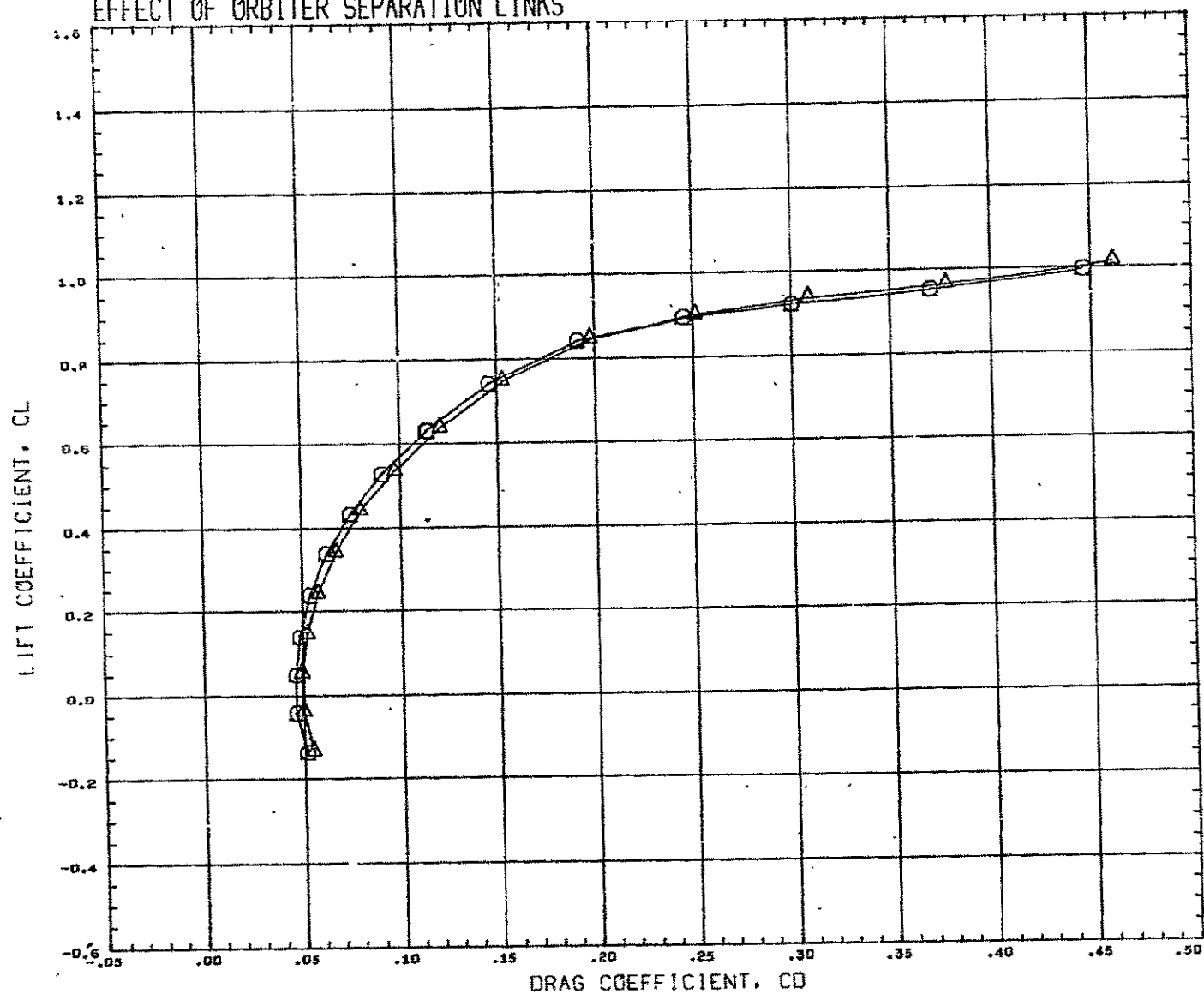
EFFECT OF ORBITER SEPARATION LINKS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
(ECV010)	Q GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ECV011)	△ GDLST 587-1 B21X1V7C4E34W16L1 SEP. LINKS ON	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
						BREF	30.1400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

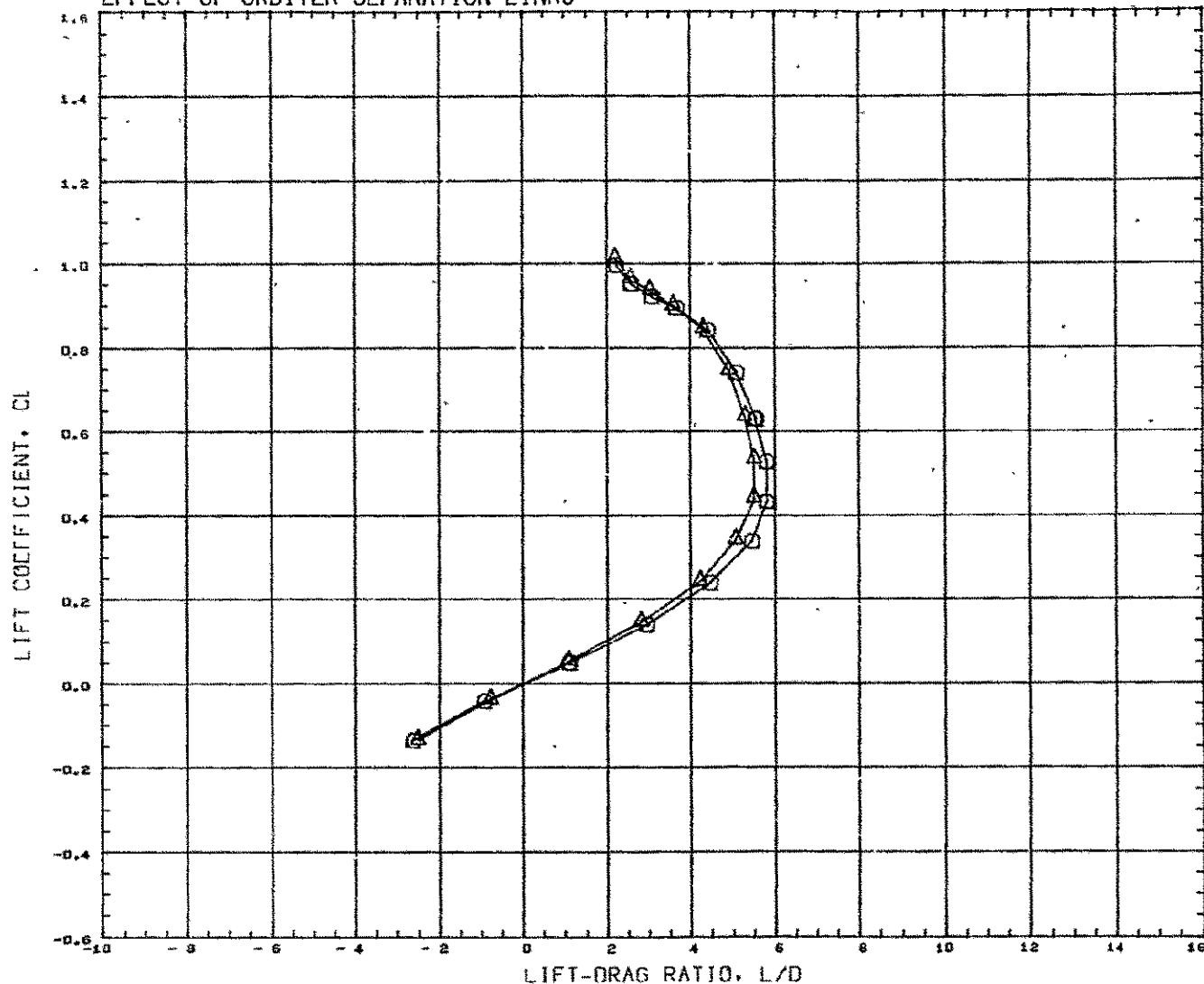
EFFECT OF ORBITER SEPARATION LINKS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
(ECVD10, ○)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3024 SQ. IN
(ECVD11, △)	GDLST 587-1 B21X1V7C4E34W16L1 SEP. LINKS ON	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
						BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.203

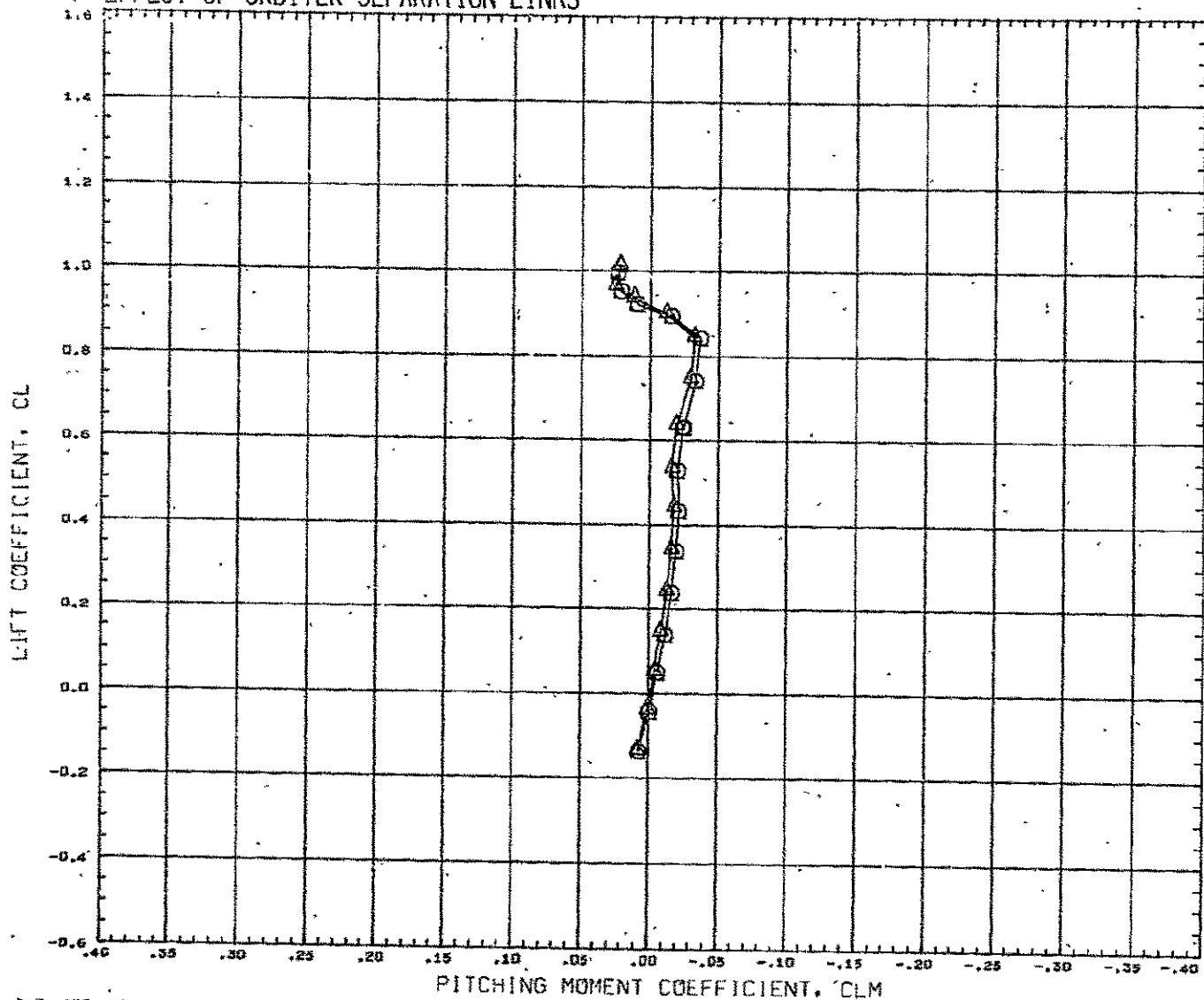
EFFECT OF ORBITER SEPARATION LINKS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
(ECV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3064 SQ. IN
(ECV011)	GDLST 587-1 B21X1V7C4E34W16L1 SEP. LINKS ON	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
						BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9580 IN.
						SCALE	0.0175

MACH 0.201

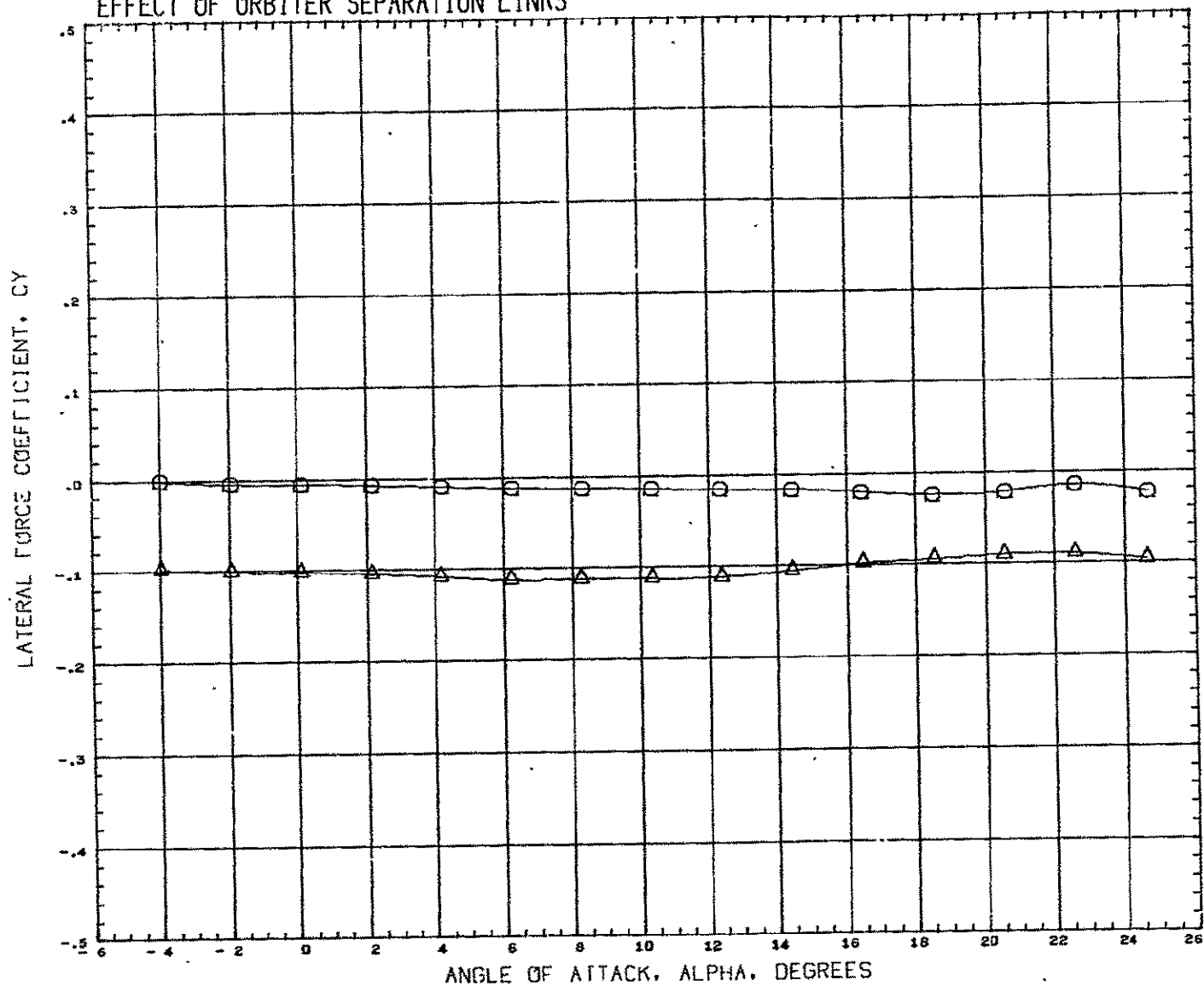
EFFECT OF ORBITER SEPARATION LINKS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
(ECYB10)	6DLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(ECYB11)	6DLST 587-3 B21X1V7C4E34W16L1 SEP. LINKS ON	0.000	0.000	0.000	0.000	LREF 15.215C IN.
						BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

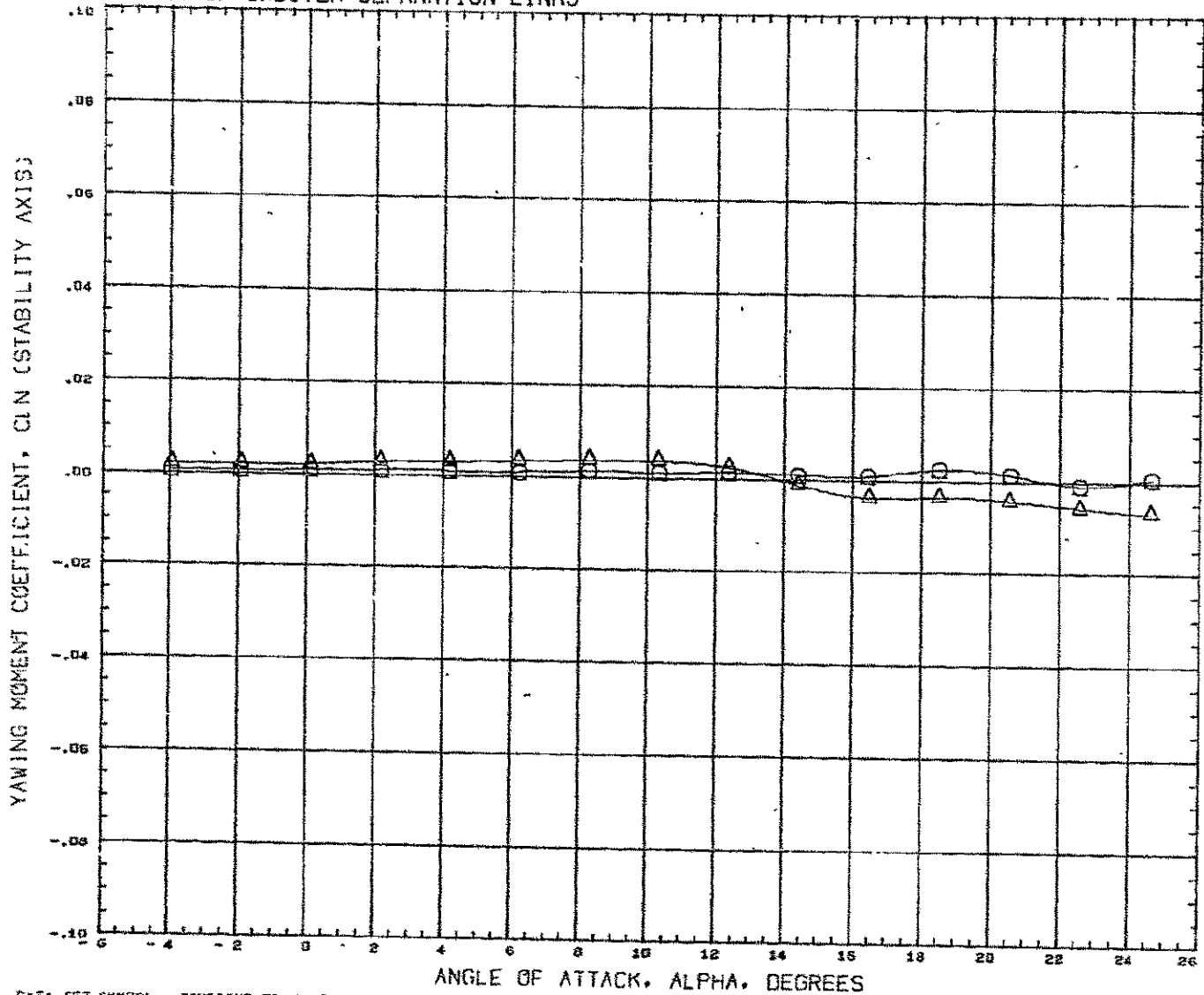
EFFECT OF ORBITER SEPARATION LINKS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILROM	RUDDER	REFERENCE INFORMATION
ECV011	GDLST 587-1 B21X1V7C4E34W16L1 SEP. LINKS ON	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN.
FCV011	GDLST 587-1 B21X1V7C4E34W16L1 SEP. LINKS ON	5.000	0.000	0.000	0.000	LREF 15 2150 IN.
						BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9360 IN.
						SCALE 0.0175

MACH 0.201

EFFECT OF ORBITER SEPARATION LINKS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ECVD11)
(FCVD11)



6DLST 587-1
6DLST 587-1

B21A1V7C4E34W16L1
B21A1V7C4E34W16L1

SEP. LINKS ON
SEP. LINKS ON

BETA

ELEVTR

AIRON

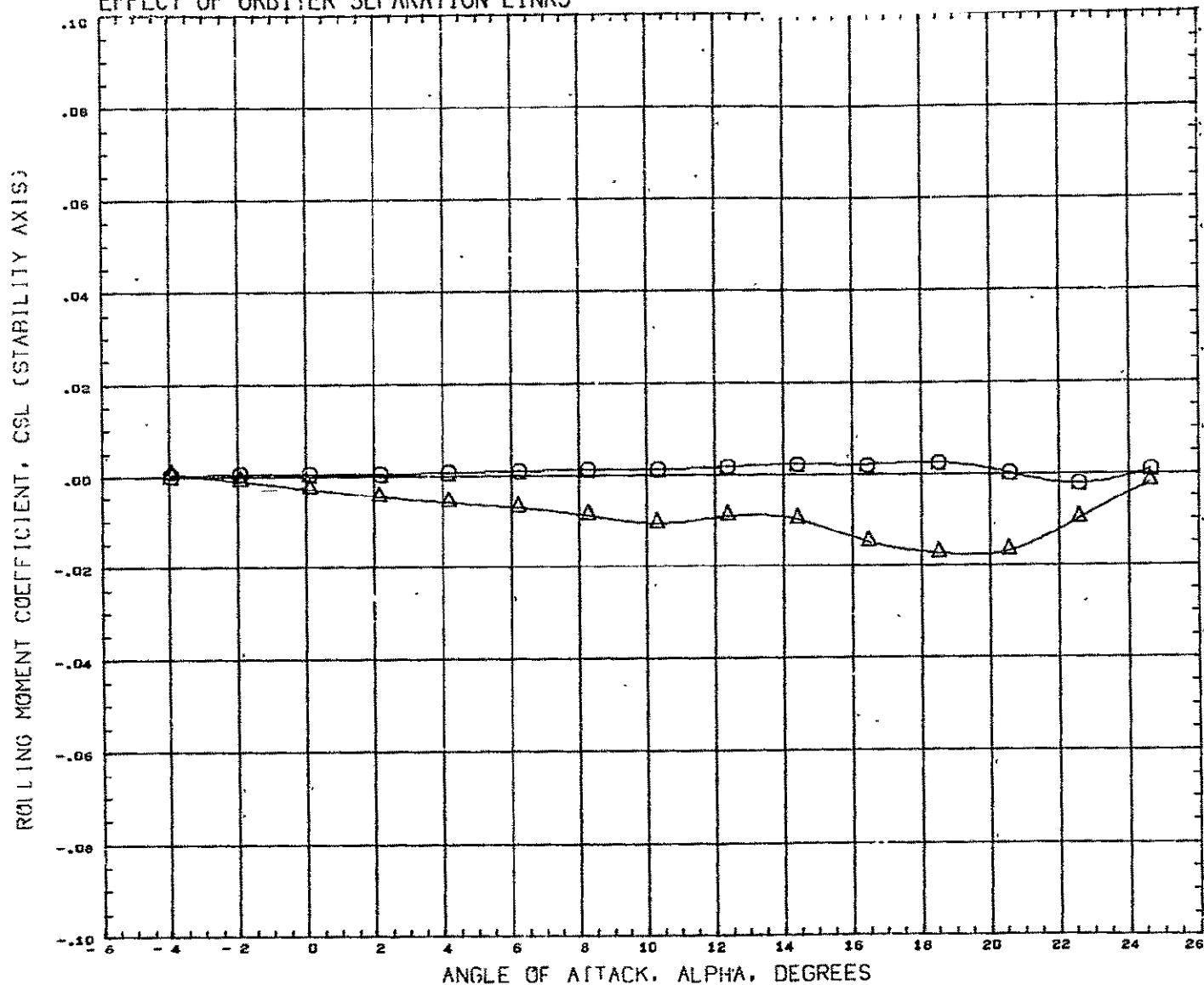
RUDDER

REFERENCE INFORMATION

SREF 380.300. SQ. IN
LREF 15.2179 IN.
BREF 30.4408 IN.
XMRP 33.4360 IN.
YMRP 0.0000 IN.
ZMRP 3.9380 IN.
SCALE 0.0175

NACH 0.201

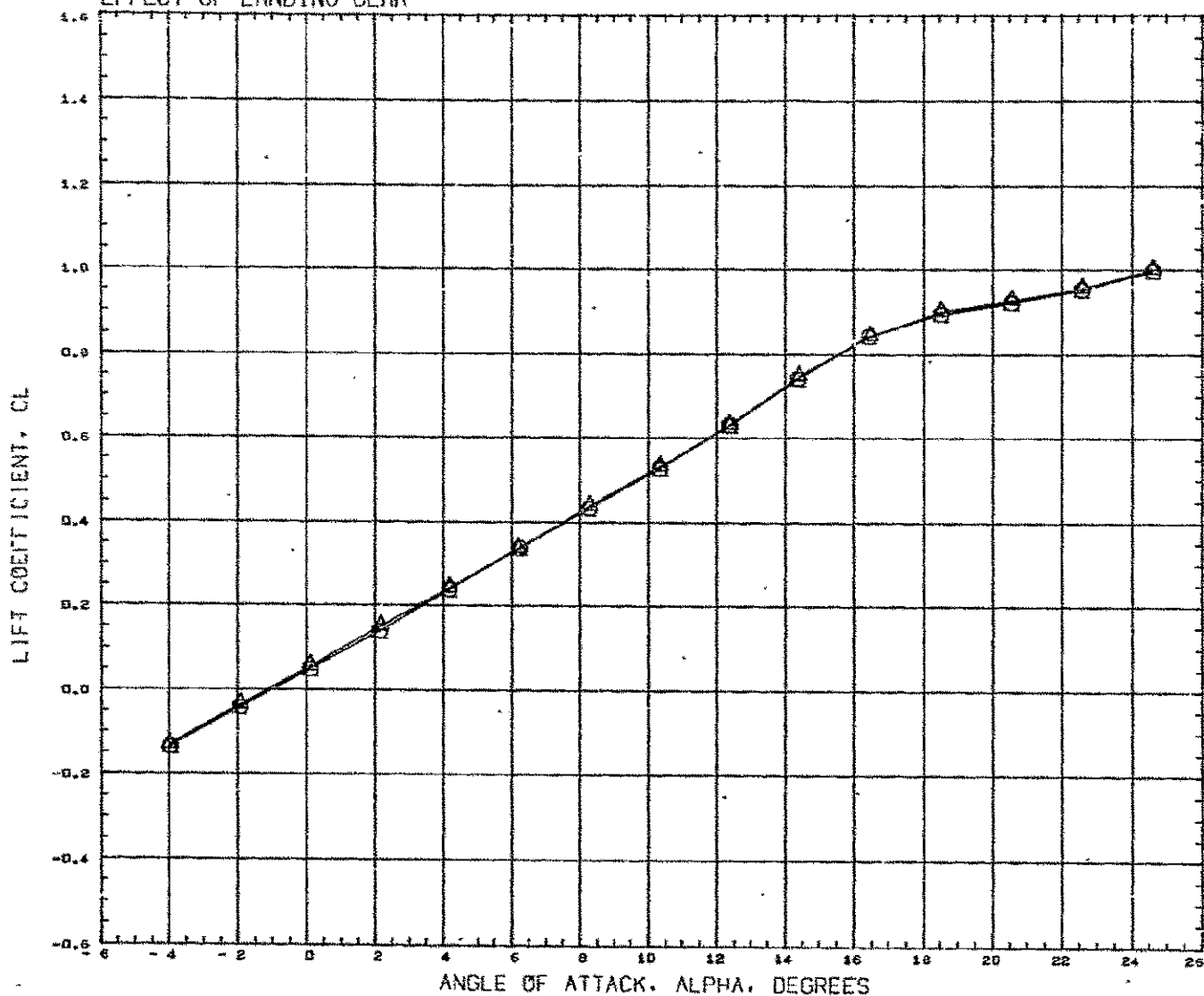
EFFECT OF ORBITER SEPARATION LINKS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR - AILRON	RUDDER	REFERENCE INFORMATION
1ECV011,	GDLST 587-1 B21X1V7C4E34W16L1 SEP. LINKS ON	0.000	0.000	0.000	SREF 380.3004 SQ. IN
1FCV011,	GDLST 587-1 B21X1V7C4E34W16L1 SEP. LINKS ON	5.000	0.000	0.000	LREF 15.2150 IN.
					BREF 30.4400 IN.
					XNRP 33.4360 IN.
					YNRP 0.0000 IN.
					ZNRP 3.9380 IN.
					SCALE 0.0175

MACH 0.201

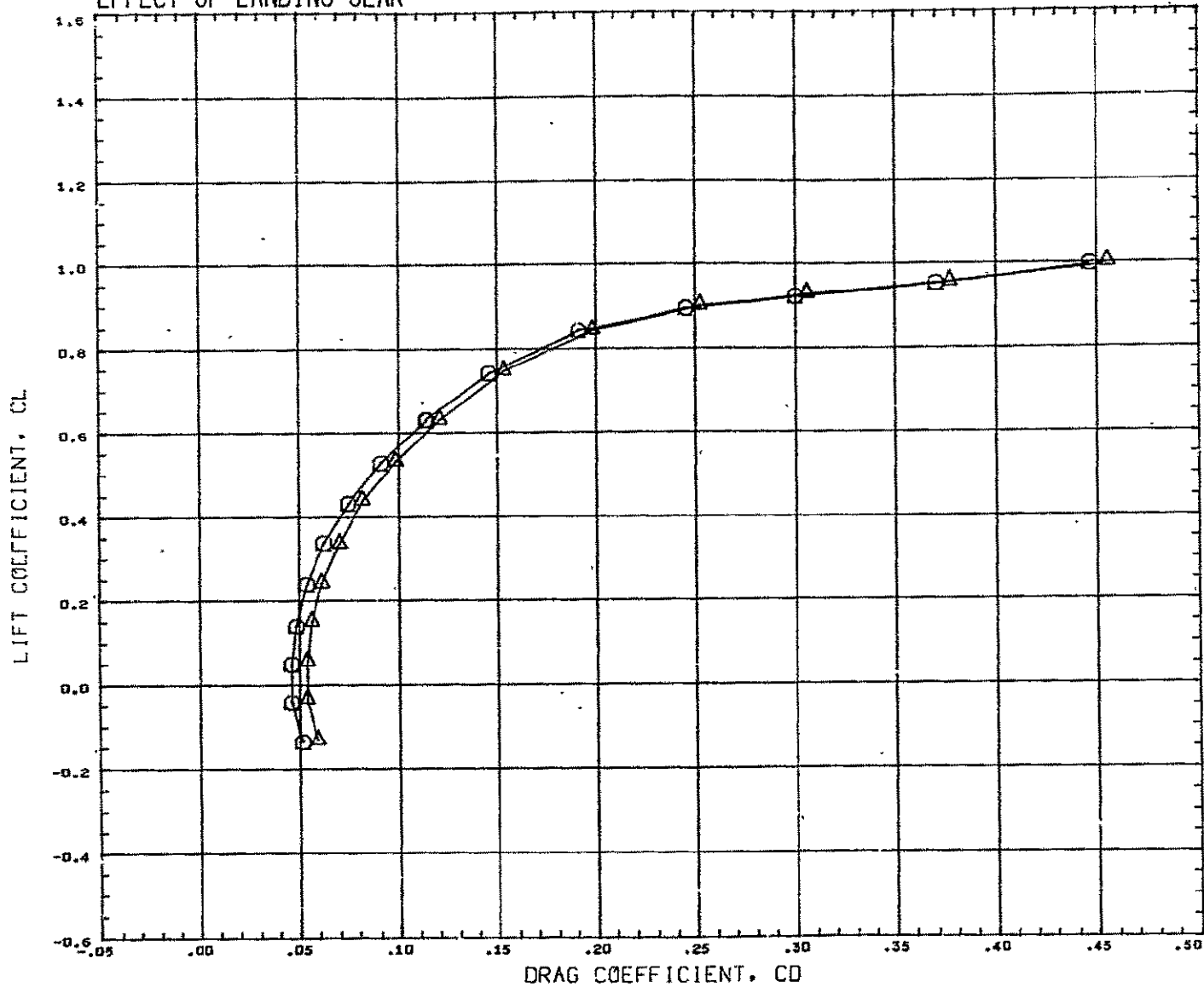
EFFECT OF LANDING GEAR



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
1ECV010	8	6DLST 987-1	B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SG. IN
1ECV012	8	6DLST 987-1	B21X1V7C4E34W1603	0.000	0.000	0.000	0.000	LREF	15.2154 IN.
								BREF	30.4400 IN.
								XMRP	33.4560 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

MACH 0.201

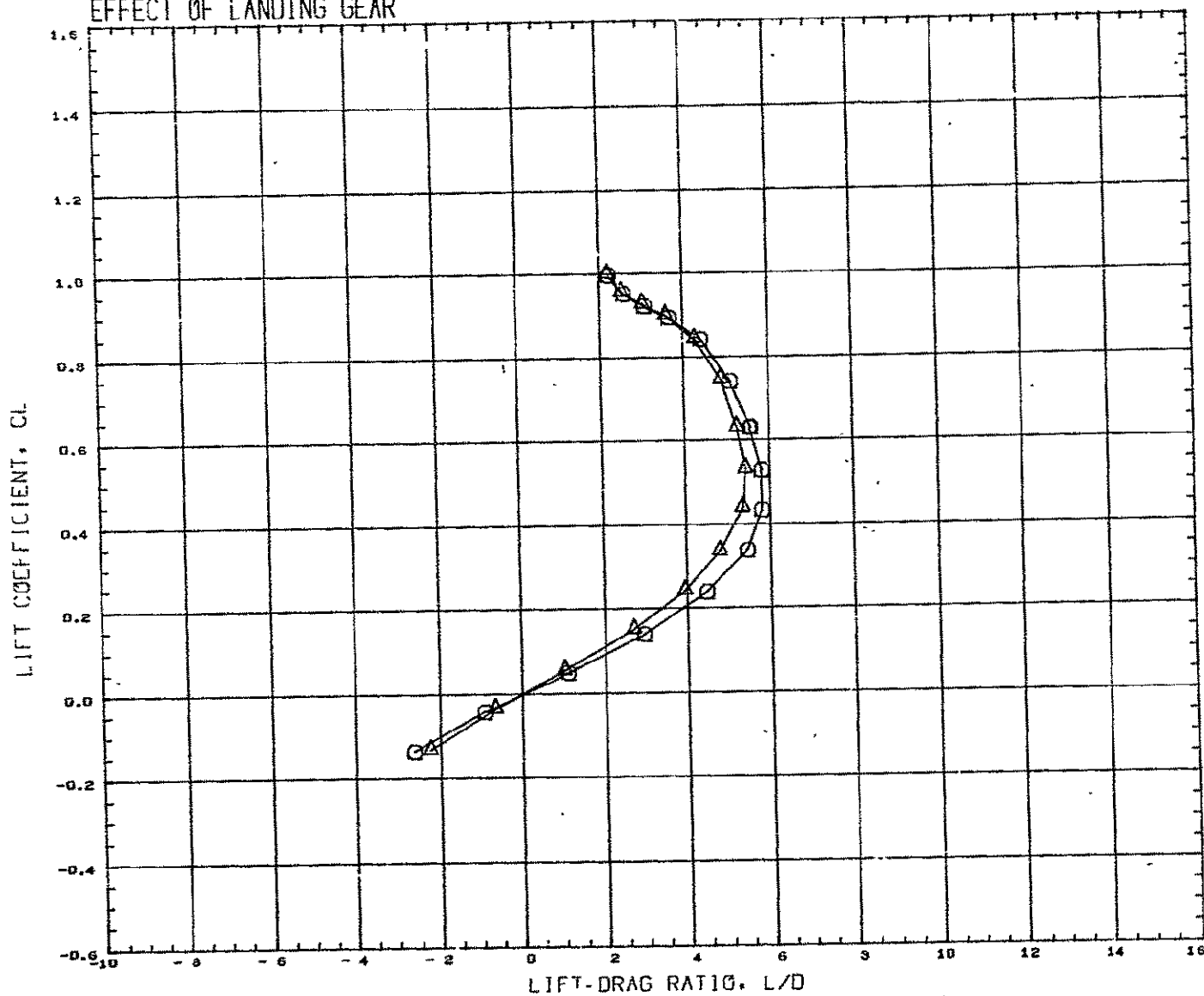
EFFECT OF LANDING GEAR



DATA SET SYMBOL	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
ECYD10	○	GDLST 587-1 B21X1V7C4E34W16	0.500	0.000	0.000	0.000	SREF	380.3004 SQ. IN
ECYD12	△	GDLST 587-1 B21X1V7C4E34W16G3 GEAR CN	0.000	0.000	0.000	0.000	LREF	15.2140 IN.
							BREF	30.4400 IN.
							XMRP	33.4360 IN.
							YMRP	0.0000 IN.
							ZMRP	3.9380 IN.
							SCALE	0.0175

MACH 0.201

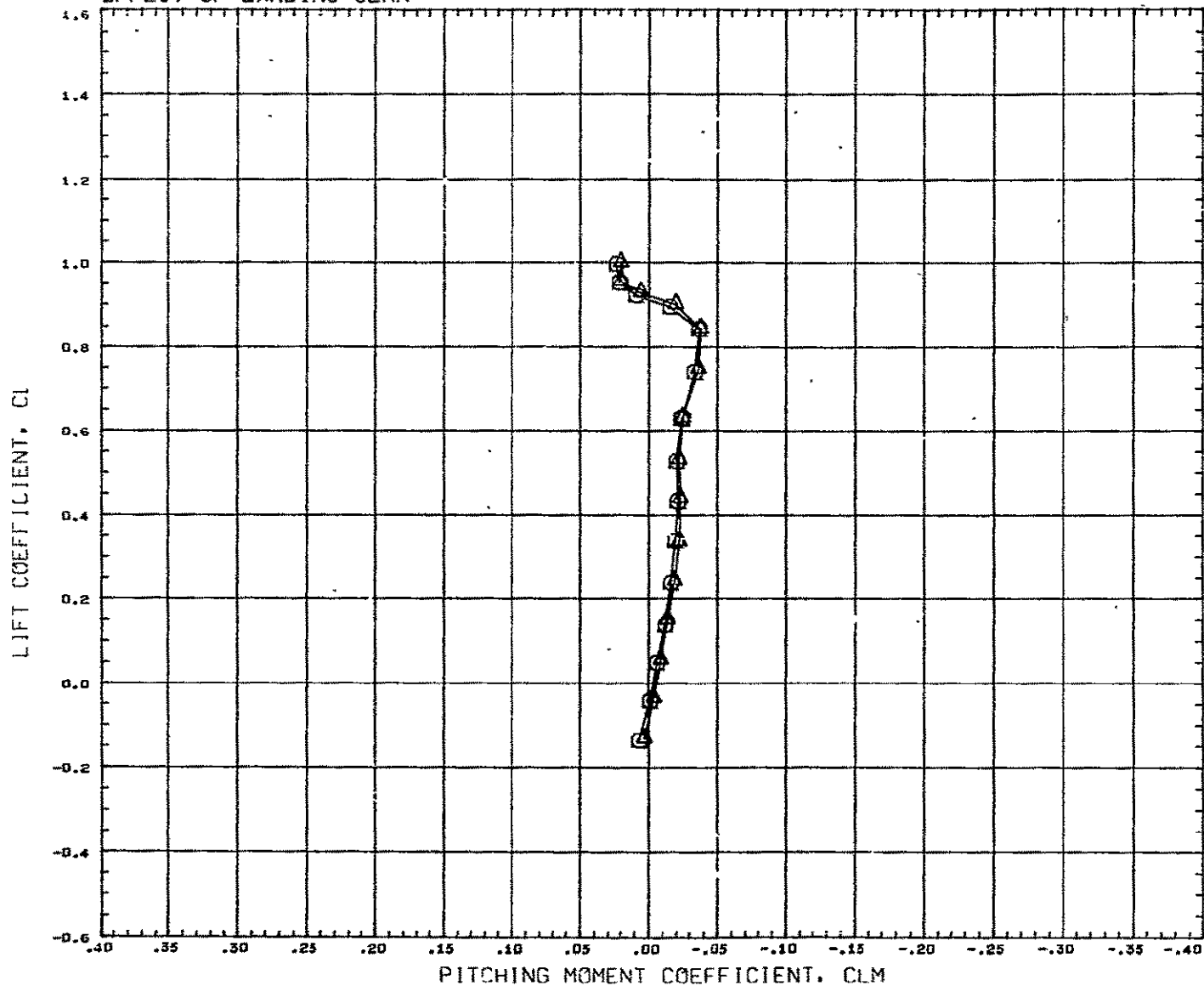
EFFECT OF LANDING GEAR





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
ECV016	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	300.3004 SQ. IN
ECV012	GDLST 587-1 B21X1V7C4E34W16G3 GEAR ON	0.000	0.000	0.000	0.000	LREF	15.2159 IN.
						SREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

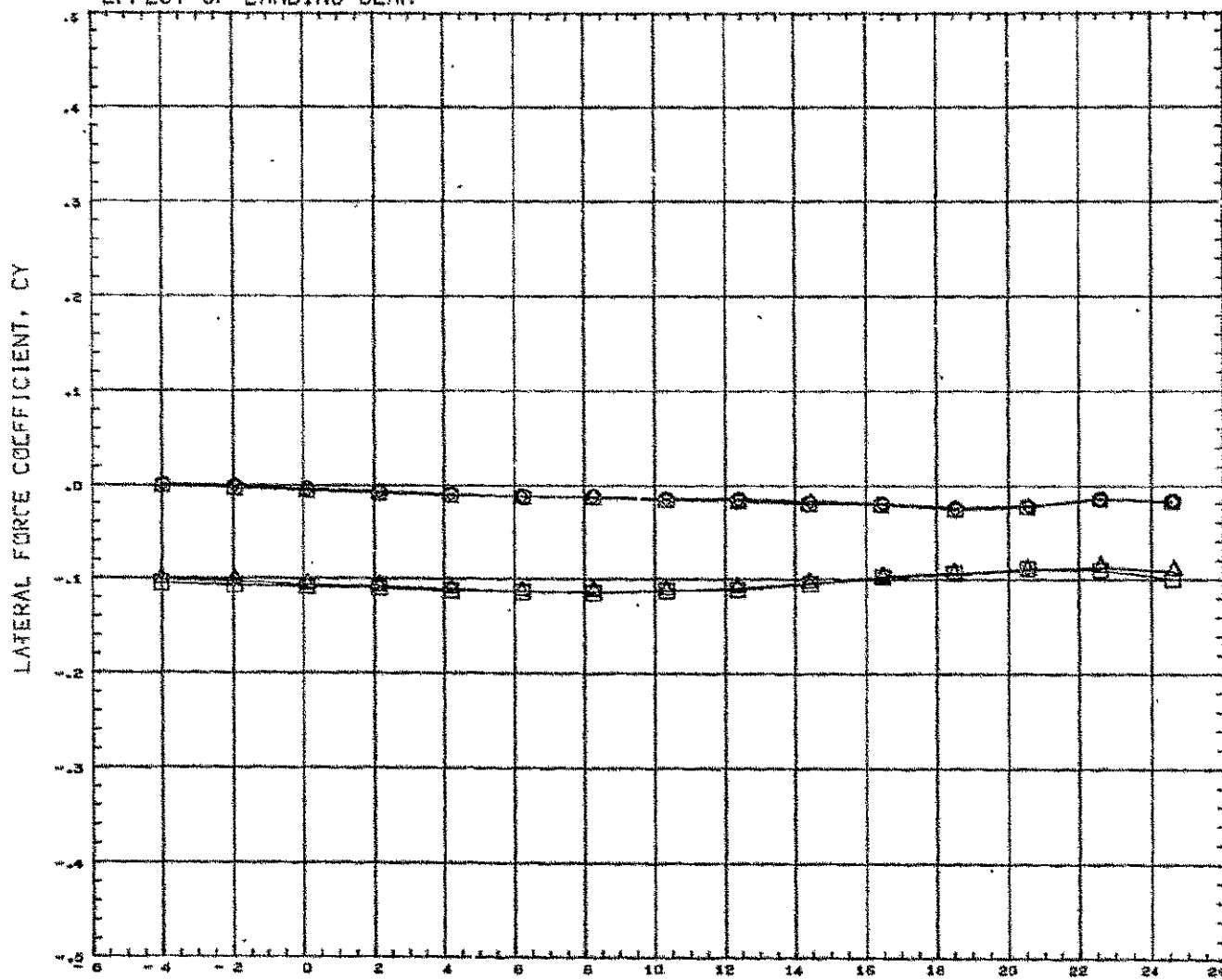
EFFECT OF LANDING GEAR



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
ECV010, 	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
ECV012, 	GDLST 587-1 B21X1V7C4E34W1663 GEAR ON	0.000	0.000	0.000	0.000	LREF	17.2150 IN.
						BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

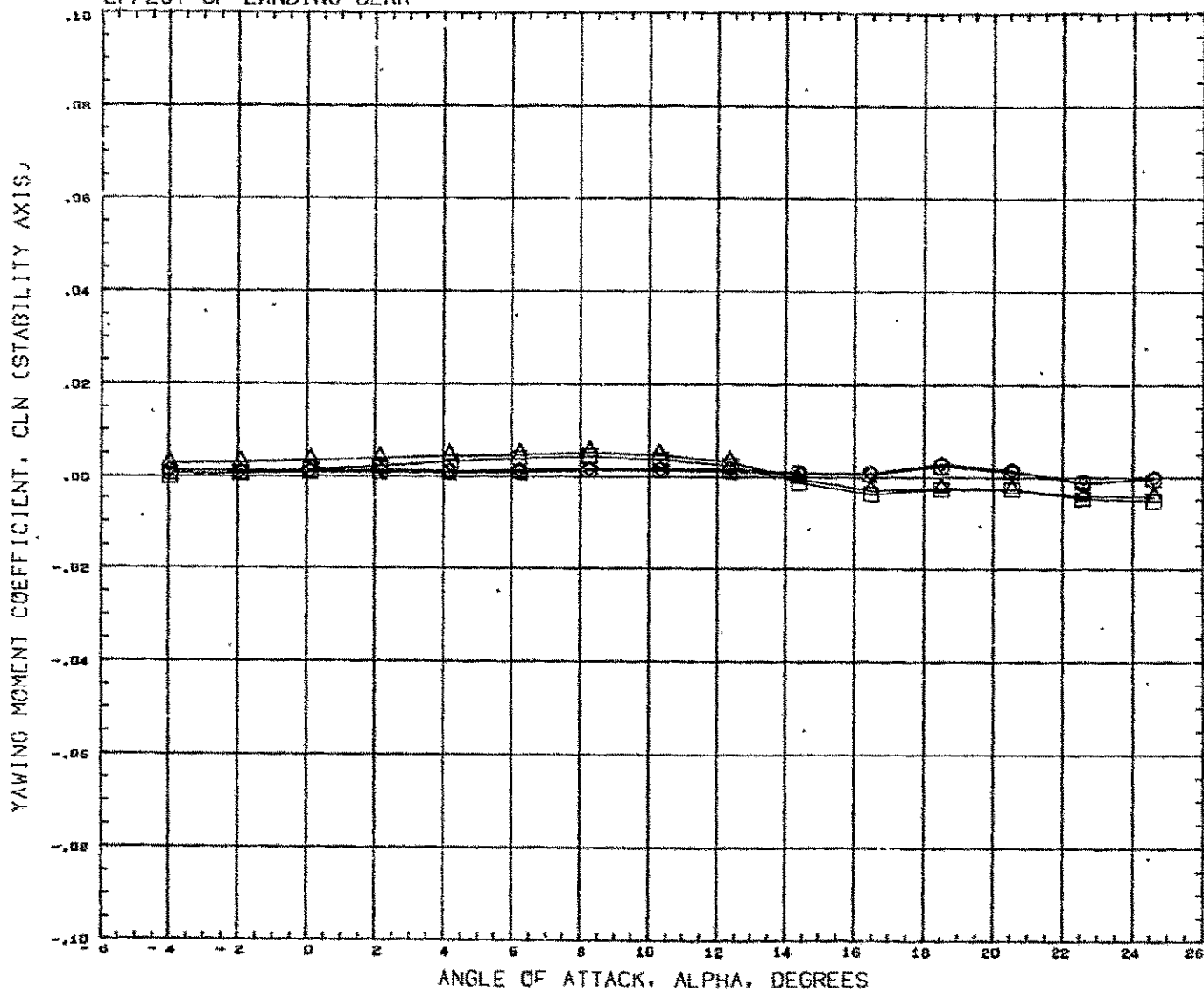
EFFECT OF LANDING GEAR



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
(ECV010)	GDLST 587-1 B2IX1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(FCV010)	GDLST 587-1 B2IX1V7C4E34W16	5.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ECV012)	GDLST 587-1 B2IX1V7C4E34W16G3 GEAR ON	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(FCV012)	GDLST 587-1 B2IX1V7C4E34W16G3 GEAR ON	5.000	0.000	0.000	0.000	XHRP	33.4360 IN.
						YHRP	0.0000 IN.
						ZHRP	3.9300 IN.
						SCALE	0.0175

NACH 0.201

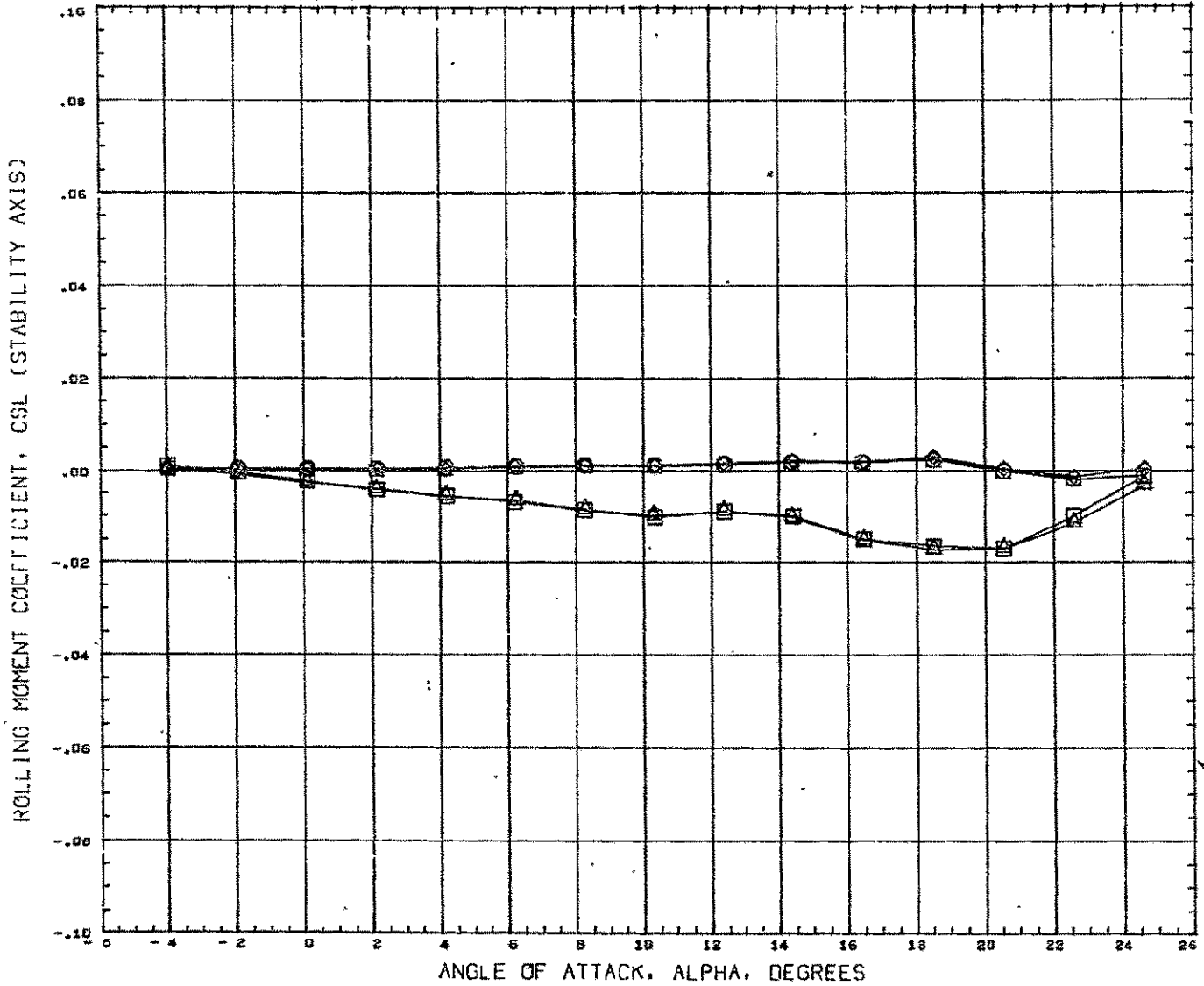
EFFECT OF LANDING GEAR



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
1ECV010	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.300 IN.
1FCV010	GDLST 587-1 B21X1V1C4E34W16	5.000	0.000	0.000	0.000	LREF	15.21 IN.
1ECV012	GDLST 587-1 B21X1V7C4E34W16G3 GEAR ON	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
1FCV012	GDLST 587-1 B21X1V7C4E34W16G3 GEAR ON	5.000	0.000	0.000	0.000	AMRP	33.4360 IN.
						YMRF	0.0000 IN.
						ZMRF	3.9380 IN.
						SCALE	0.0175

MACH 0.201

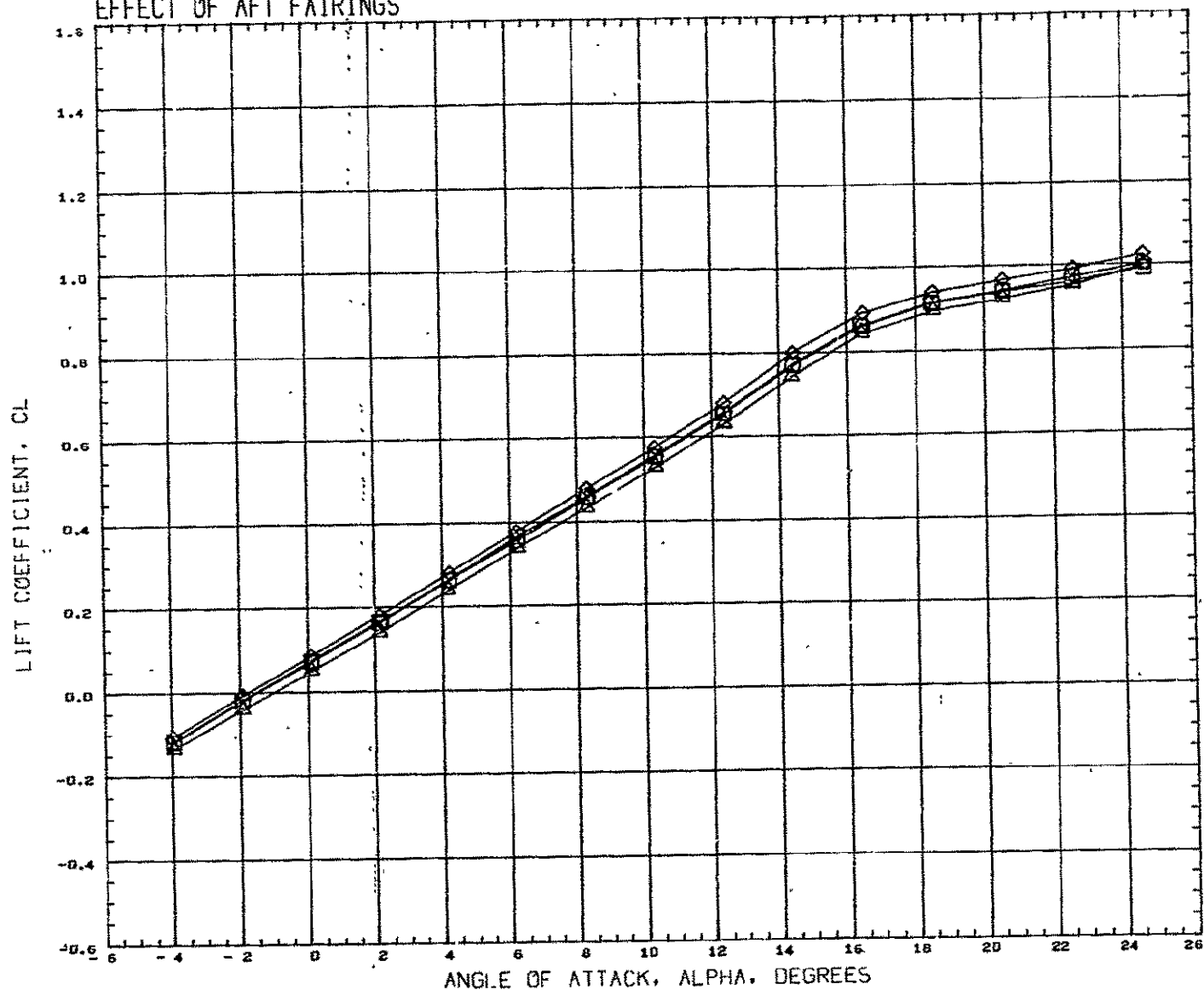
EFFECT OF LANDING GEAR



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
ICVD10	GDLST 507-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
ICVD10	GDLST 507-1 B21X1V7C4E34W16	5.000	0.000	0.000	0.000	LREF	15.2177 IN.
ICVD12	GDLST 507-1 B21X1V7C4E34W1603	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
ICVD12	GDLST 507-1 B21X1V7C4E34W1603 GEAR ON	5.000	0.000	0.000	0.000	XMRP	35.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	5.9380 IN.
						SCALE	0.0175

MACH 0.201

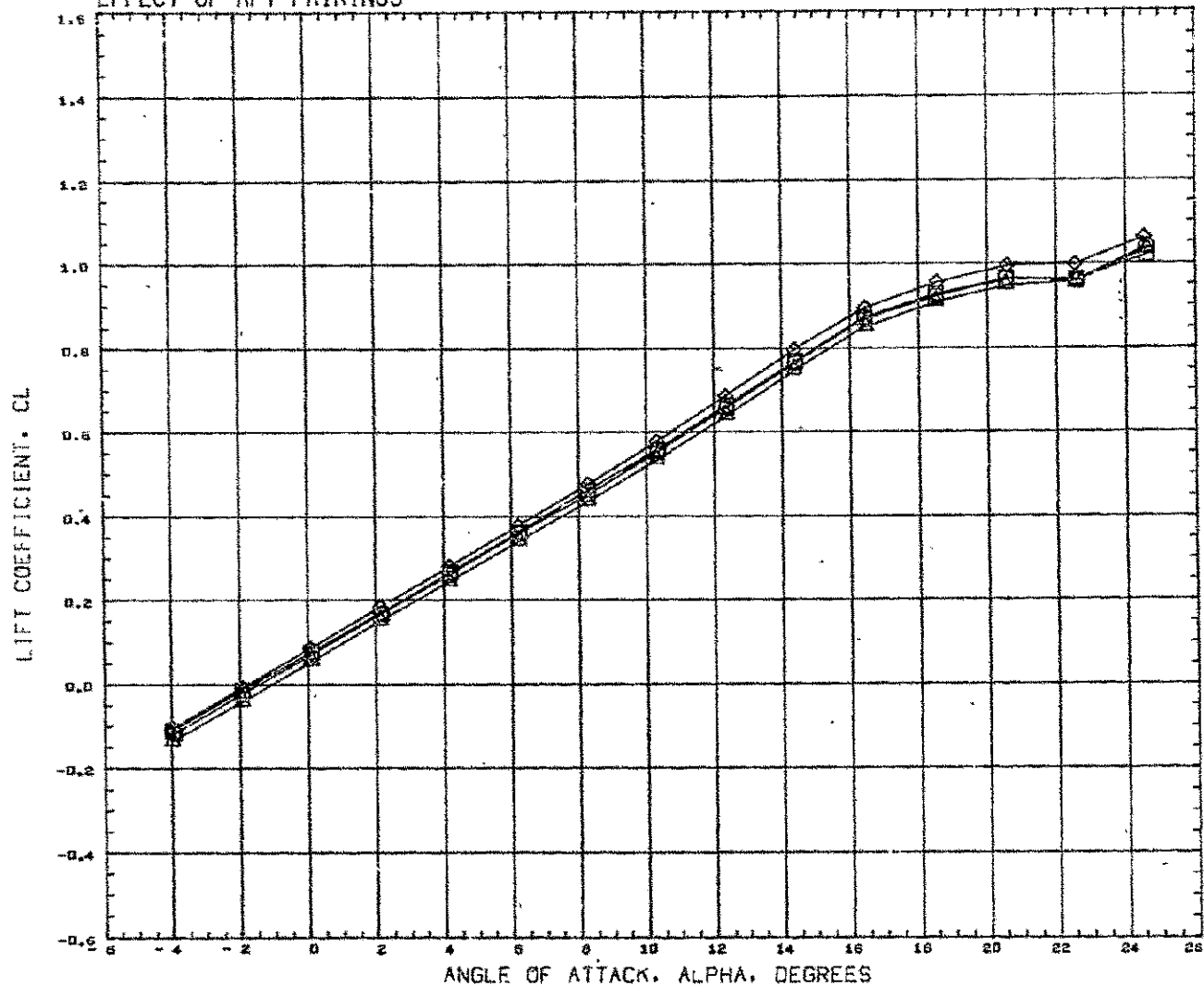
EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
ACV015	○	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
ACV010	△	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF 17.2150 IN.
ACV013	◇	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF 30.4400 IN.
ACV014	□	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.0175

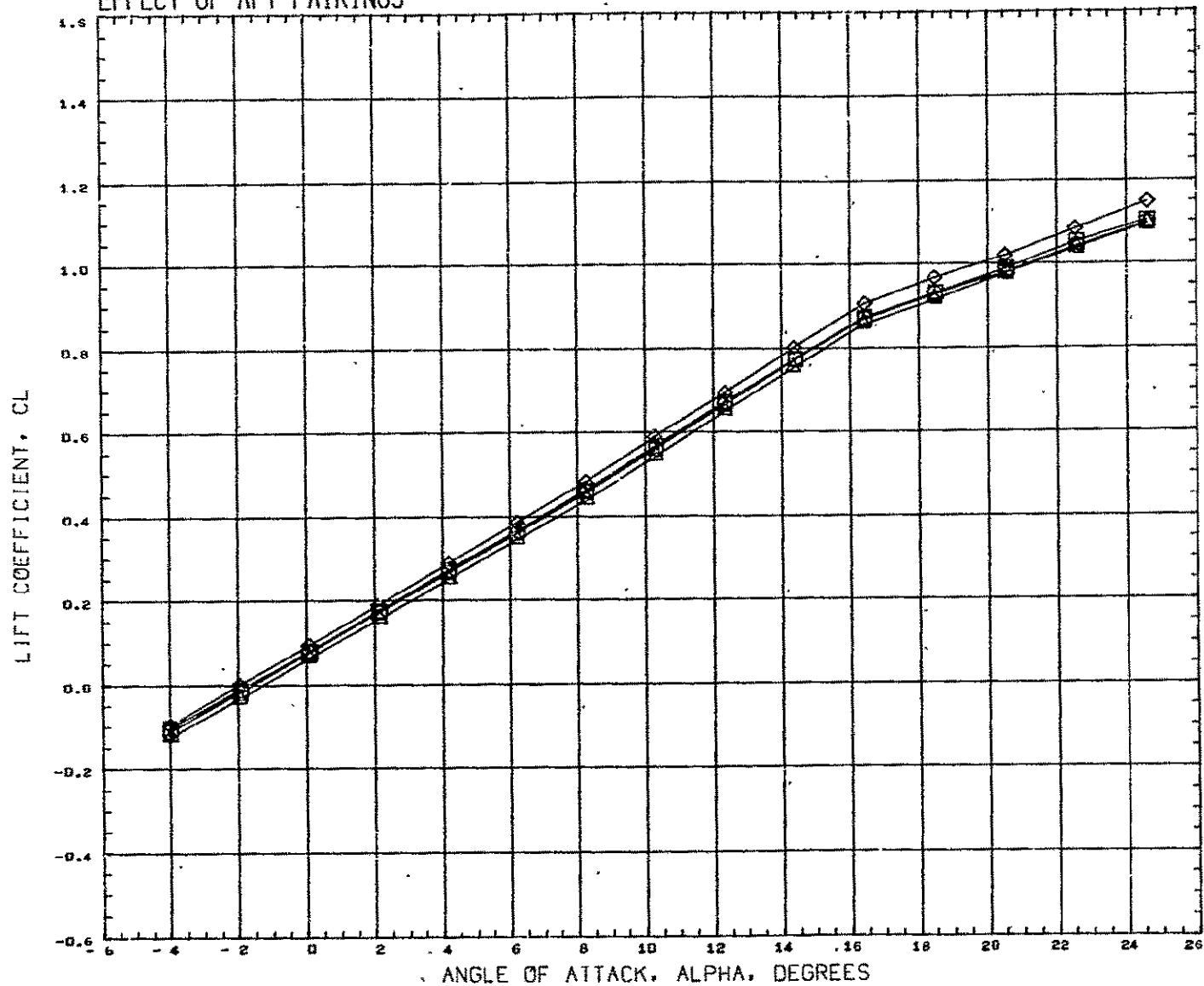
BETA 0.000

EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	A1LRON	RUDDER	CANVTR	REFERENCE INFORMATION		
ACV019	GDLST 587-3 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004	52. IN
ACV010	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2150	IN.
ACV013	GDLST 587-3 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
ACV014	GDLST 587-3 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	35.4568	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
BETA	5.000							

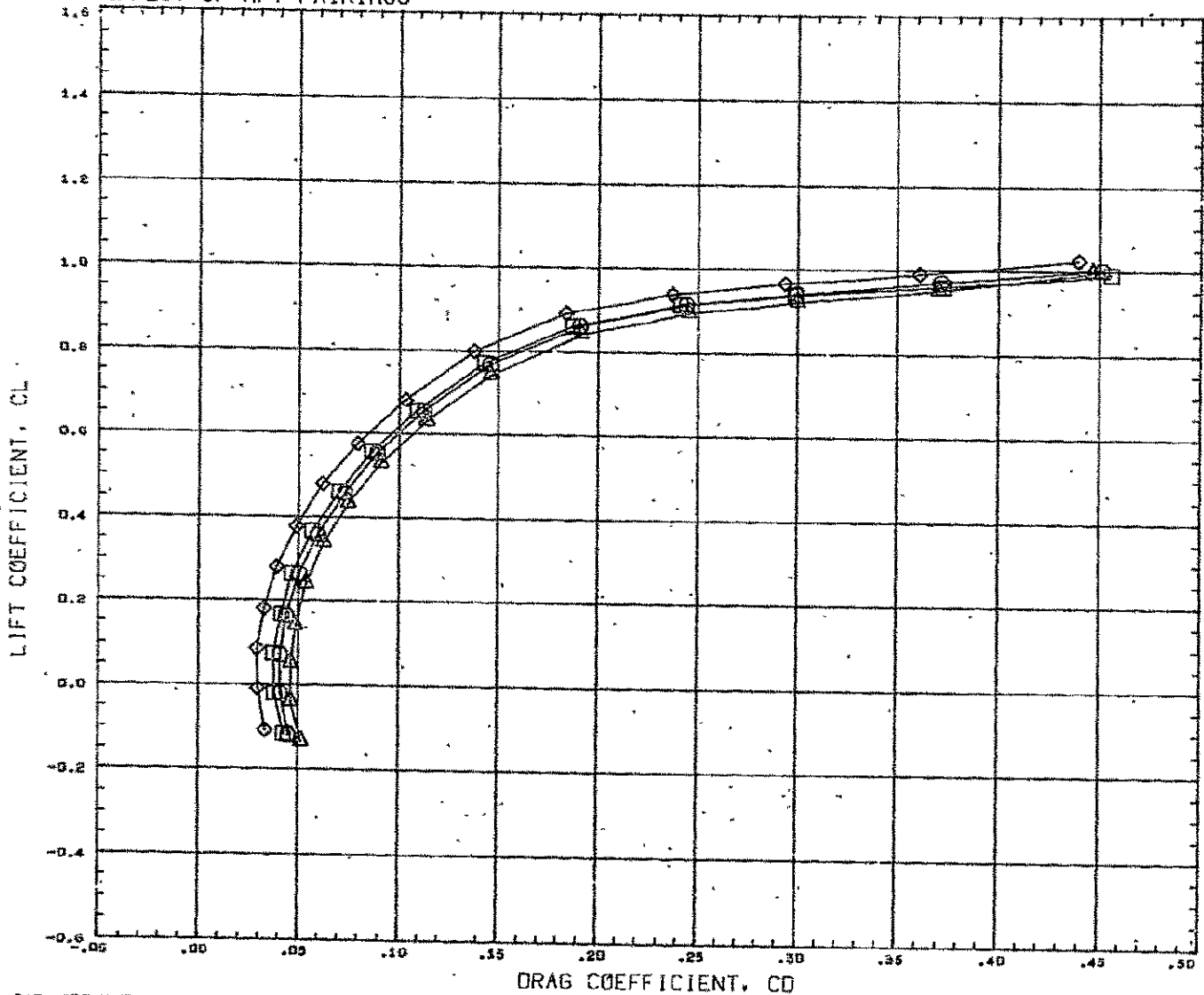
EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
ACV055	○	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
ACV010	△	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF 15.2153 IN.
ACV013	◇	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF 30.4400 IN.
ACV014	□	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.0175

BETA 10.000

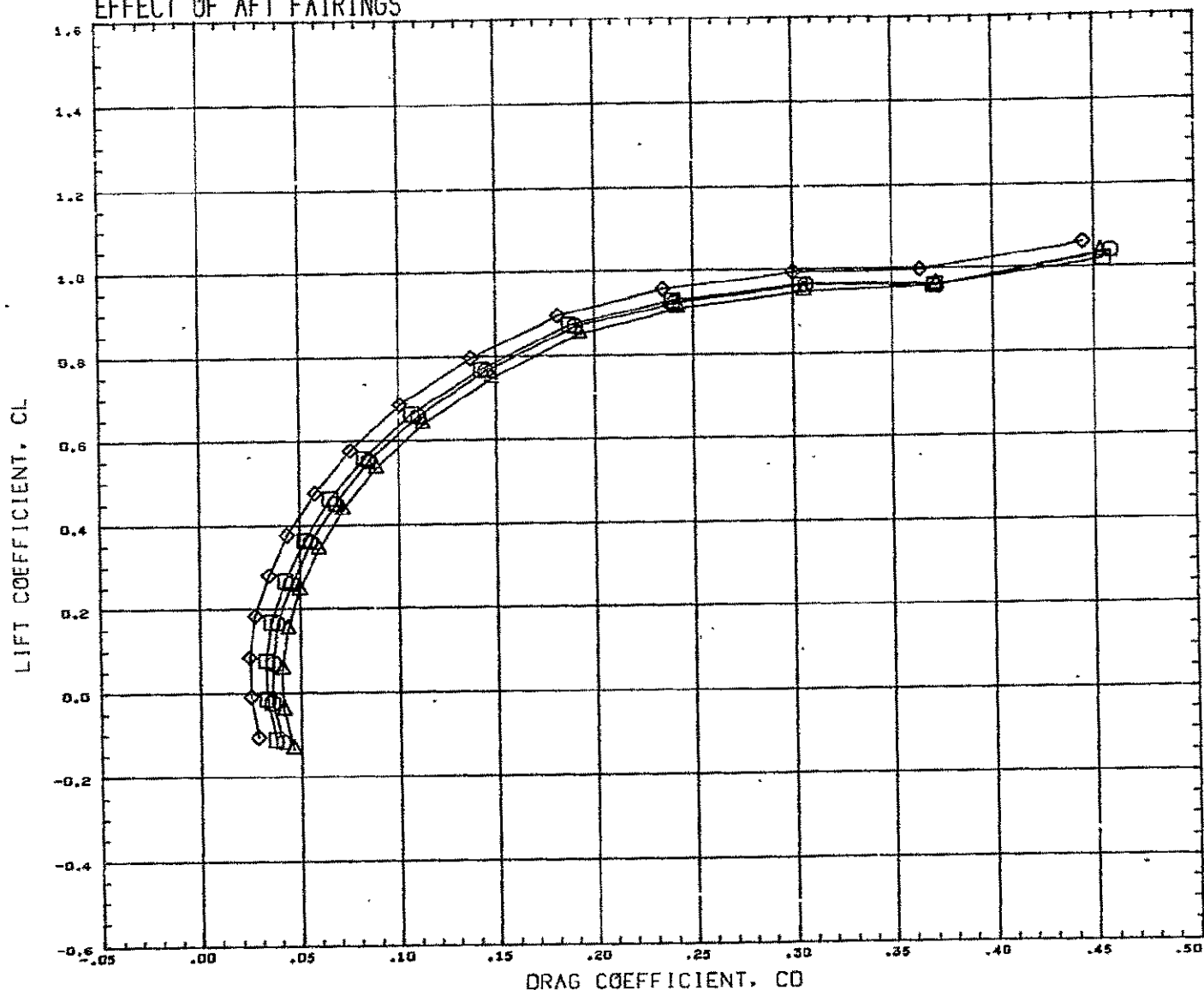
EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
ACV015	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF 360.3094 SQ. IN
ACV010	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF 15.2151 IN.
ACV013	GDLST 587-1 B21A2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF 30.4400 IN.
ACV014	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XNRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZNRP 3.9380 IN.
						SCALE 0.0175

BETA 0.000

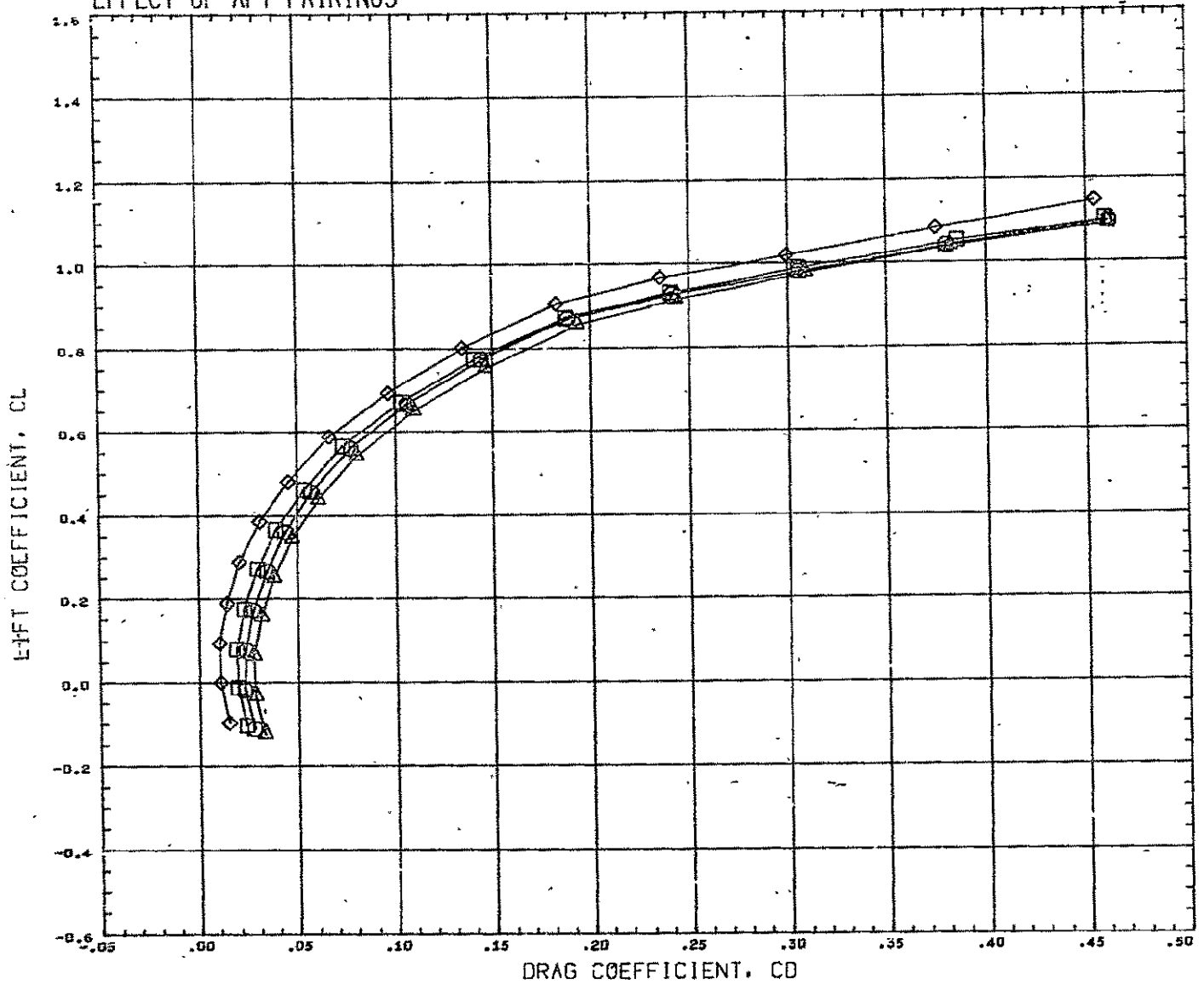
EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACVD15)	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3001 SQ. IN
(ACVD10)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ACVD13)	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACVD14)	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XNRF	33.4360 IN.
						YNRF	0.0000 IN.
						ZNRF	3.9380 IN.
						SCALE	0.0175

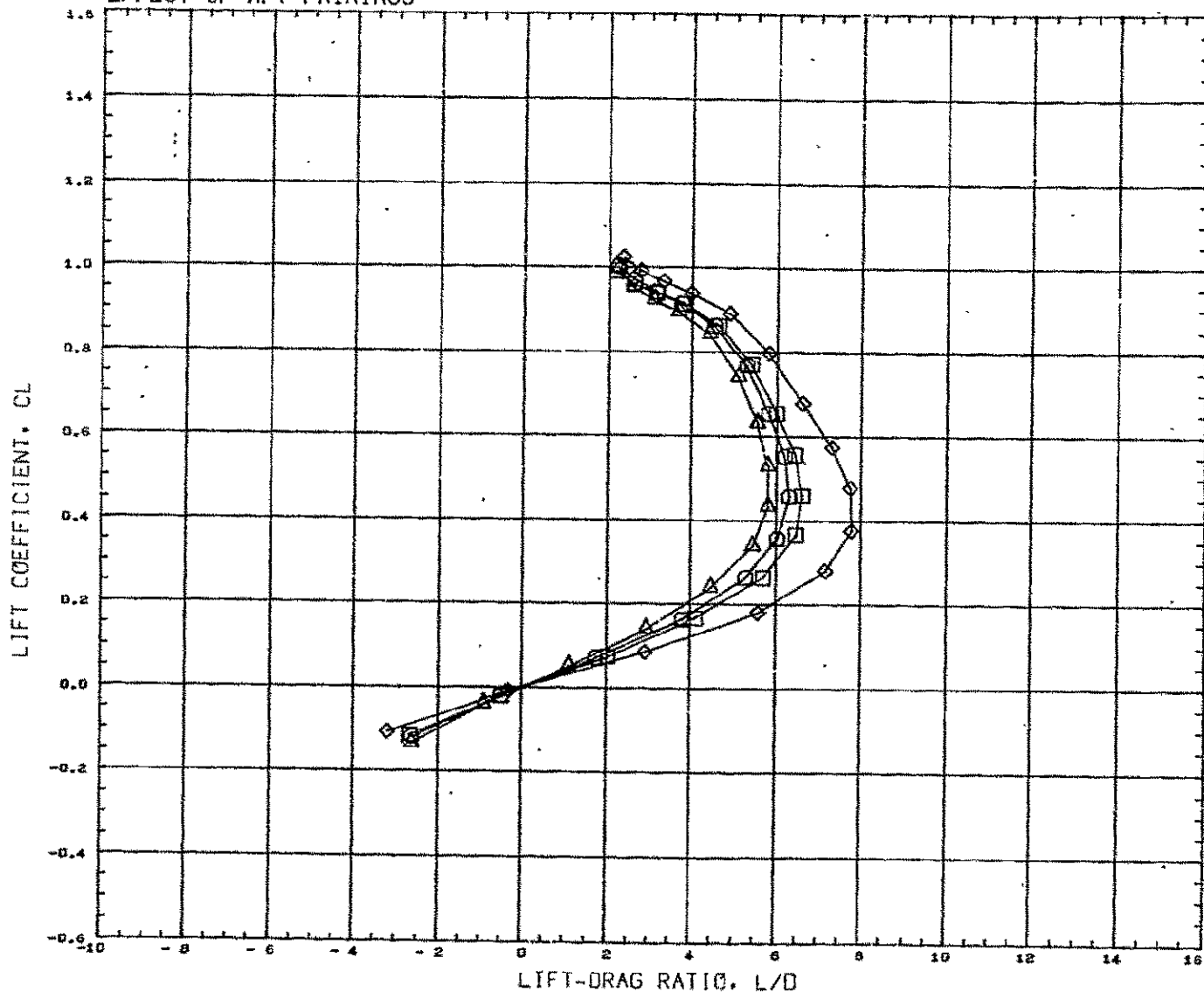
BETA 5.000

EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
ACVD15	◇	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3000 SQ. IN
ACVD10	□	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2153 IN.
ACVD13	△	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
ACVD14	○	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
							YMRP	0.0000 IN.
							ZMRP	1.9380 IN.
							SCALE	0.0175
BETA		10.000						

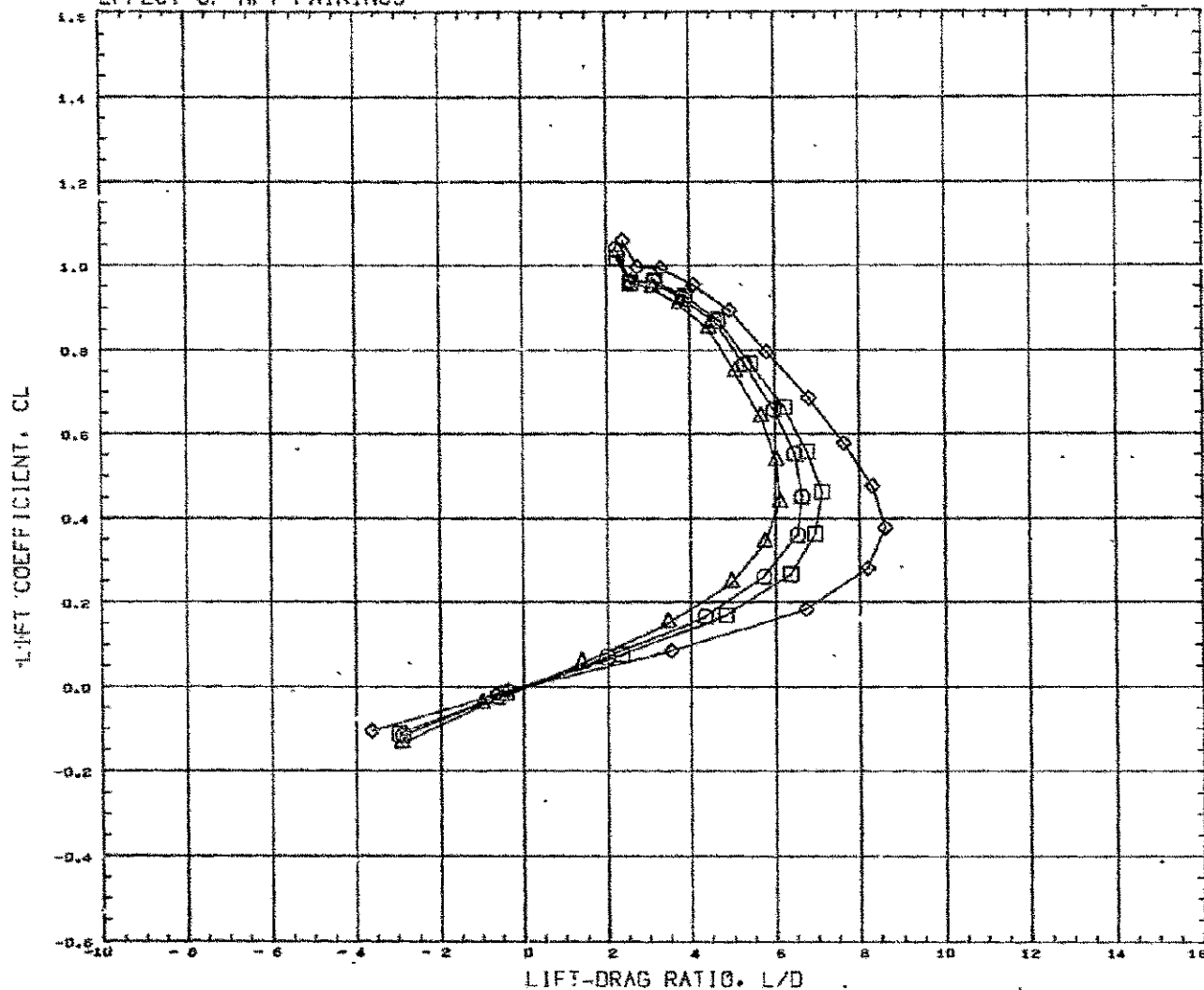
EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACVD15)	◇	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004	sq. in.
(ACVD10)	△	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LRSP	15.7150	in.
(ACVD13)	□	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BRFP	30.4400	in.
(ACVD14)	○	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33.4360	in.
							YMRP	0.0000	in.
							ZMRP	3.9380	in.
							SCALE	0.0175	

BETA 0.000

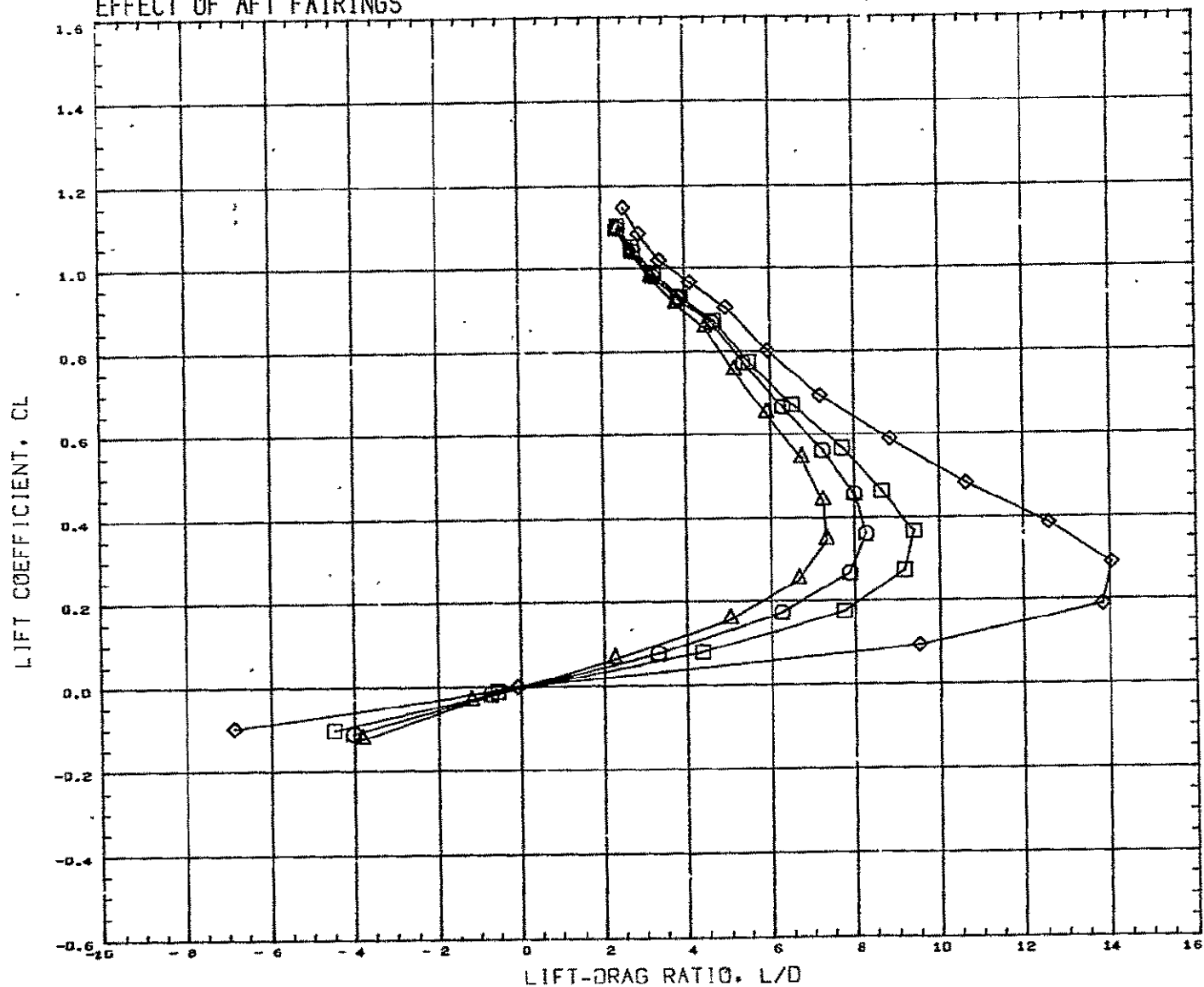
EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANYTR	REFERENCE INFORMATION
1ACV015	◇	6DLST 507-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF 360.3004 52. IN
1ACV010	△	6DLST 507-1 B21X1V1C4E34W16	0.000	0.000	0.000	0.000	LREF 15 2150 IN.
1ACV013	○	6DLST 507-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF 30.4400 IN.
1ACV014	□	6DLST 507-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.0175

BETA 5.000

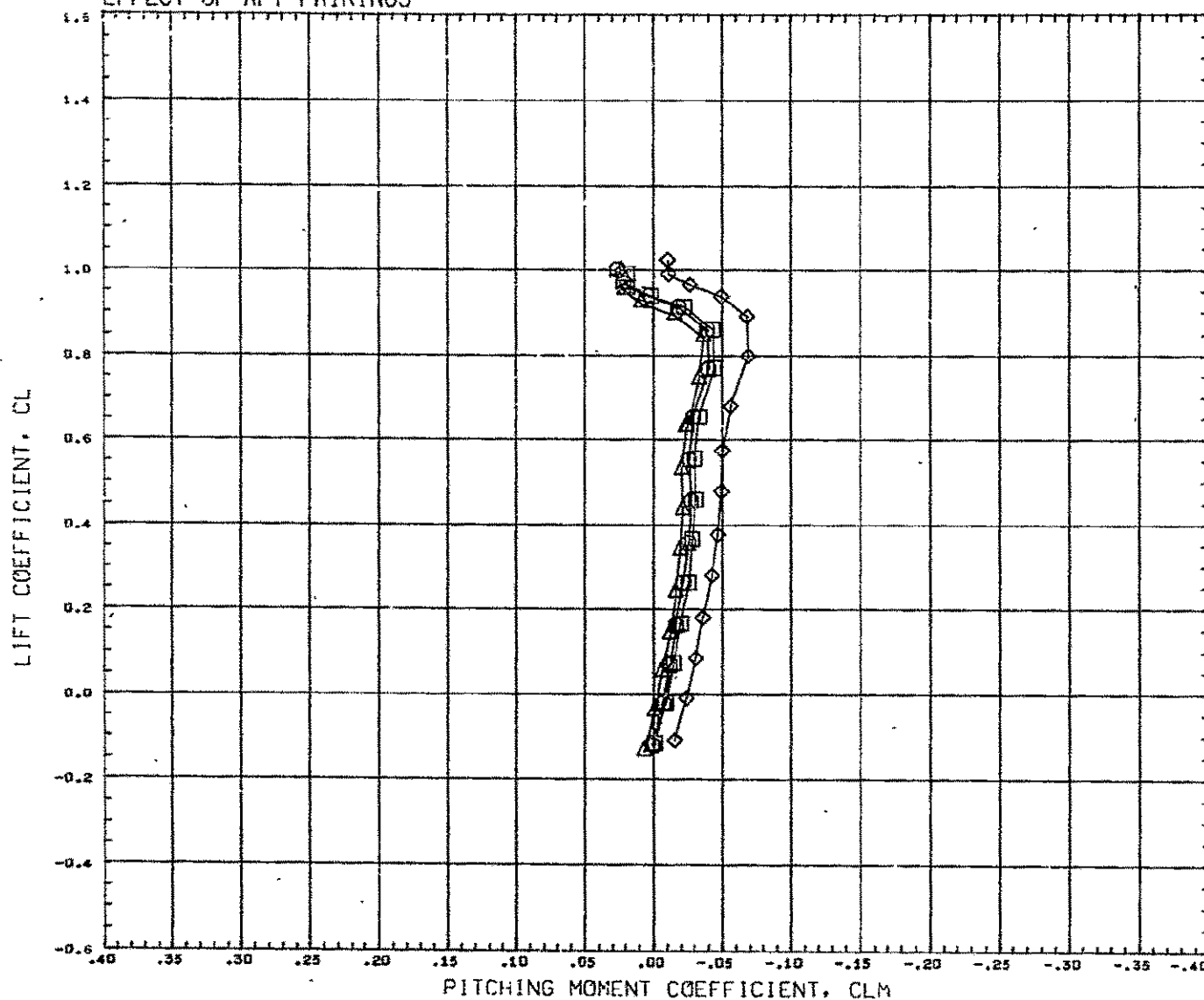
EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACVD15)	GDLST 587-1 821V/C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380,3002 sq. IN
(ACVD10)	GDLST 587-1 821X1V7C4E34W16	0.000	0.000	0.000	0.000	LFEP	15,2123 IN.
(ACVD13)	GDLST 587-1 821X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BRFP	30,4400 IN.
(ACVD14)	GDLST 587-1 821X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33,4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

BETA 10.000

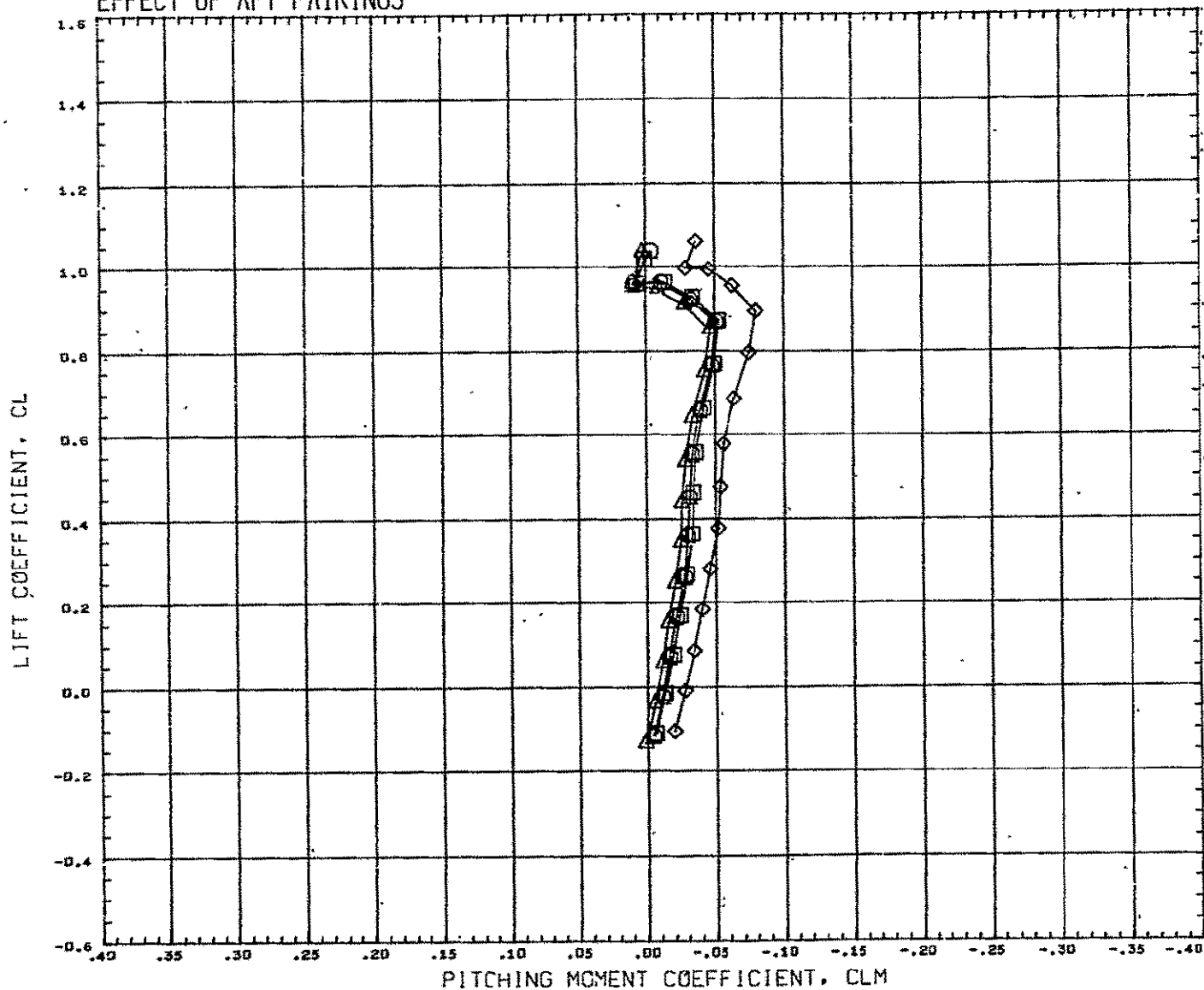
EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
ACV012	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
ACV010	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2157 IN.
ACV013	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
ACV014	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

BETA 0.000

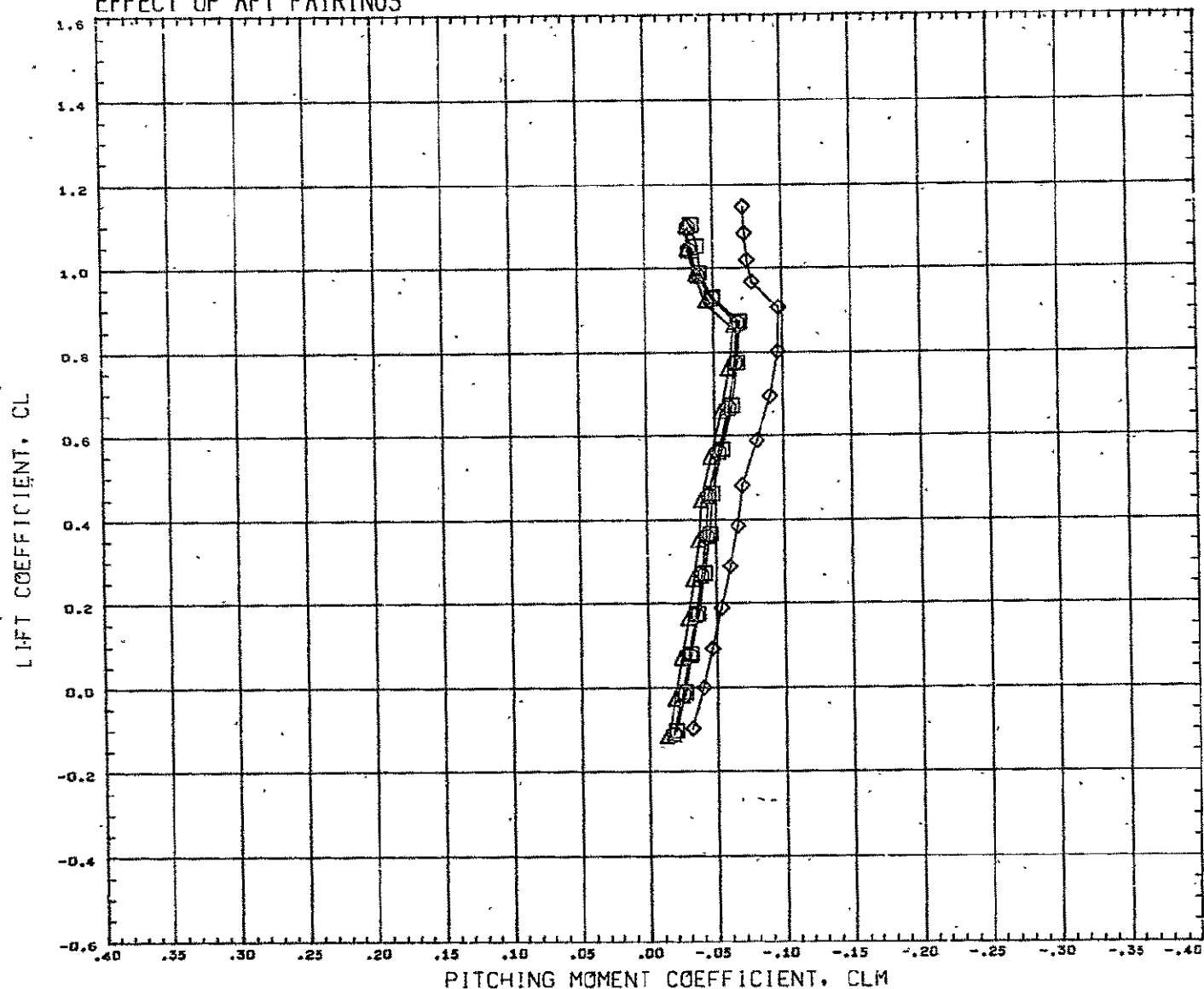
EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANYTR	REFERENCE INFORMATION		
(ACV015)	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.300A	SQ. IN
(ACV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.215'	IN.
(ACV013)	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACV014)	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

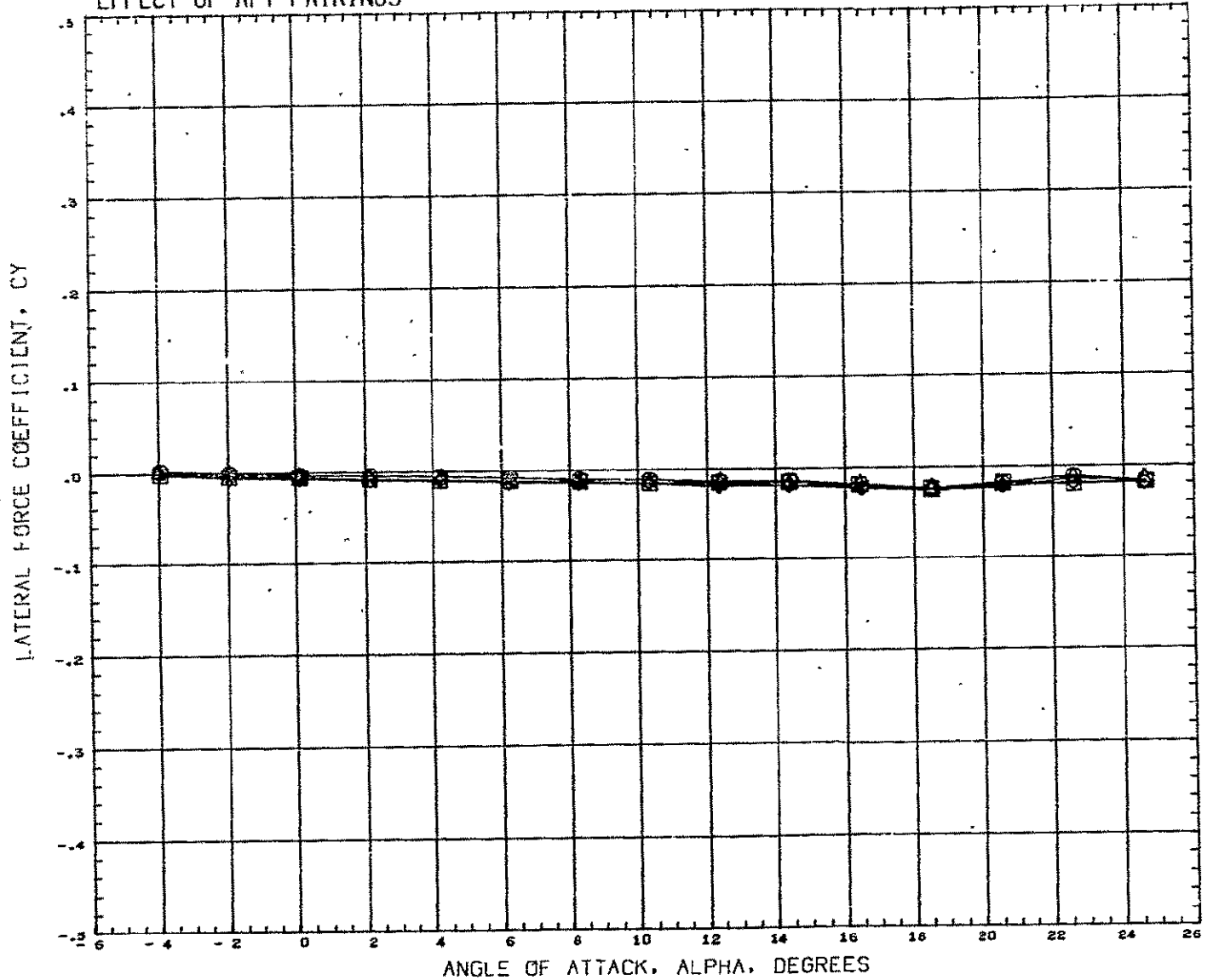
BETA 5.000

EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACVD15)	○	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004	SG. IN
(ACVD10)	△	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2151	IN.
(ACVD13)	◇	GDLST 587-1 B21X2V7C4E34W16 FERR/ CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACVD14)	□	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9380	IN.
							SCALE	0.0175	
BETA 10.000									

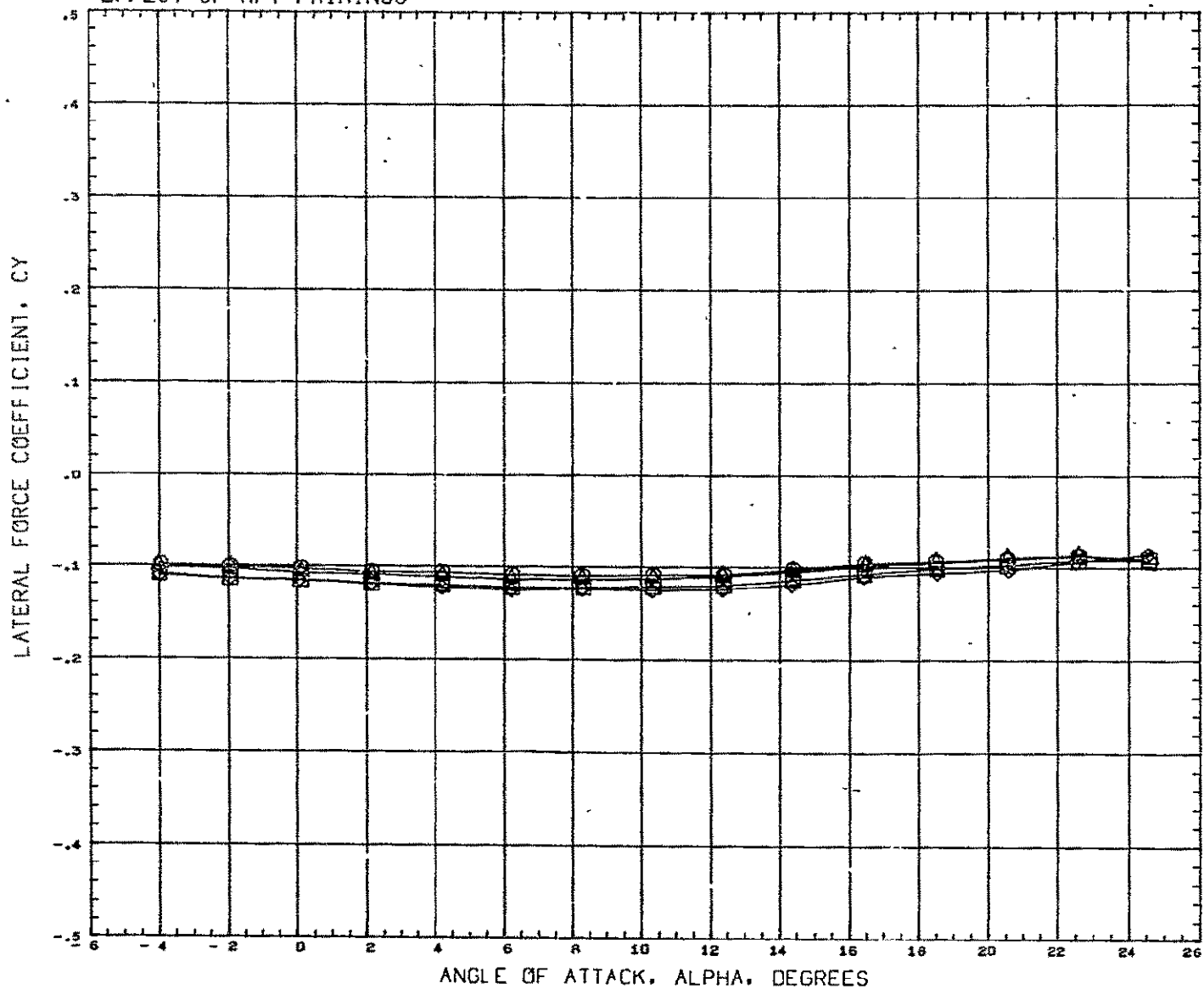
EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACYD15)	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004	50. IN
(ACYD16)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	16.2150	IN.
(ACYD13)	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACYD14)	GDLST 587-1 B21A3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

BETA 0.000

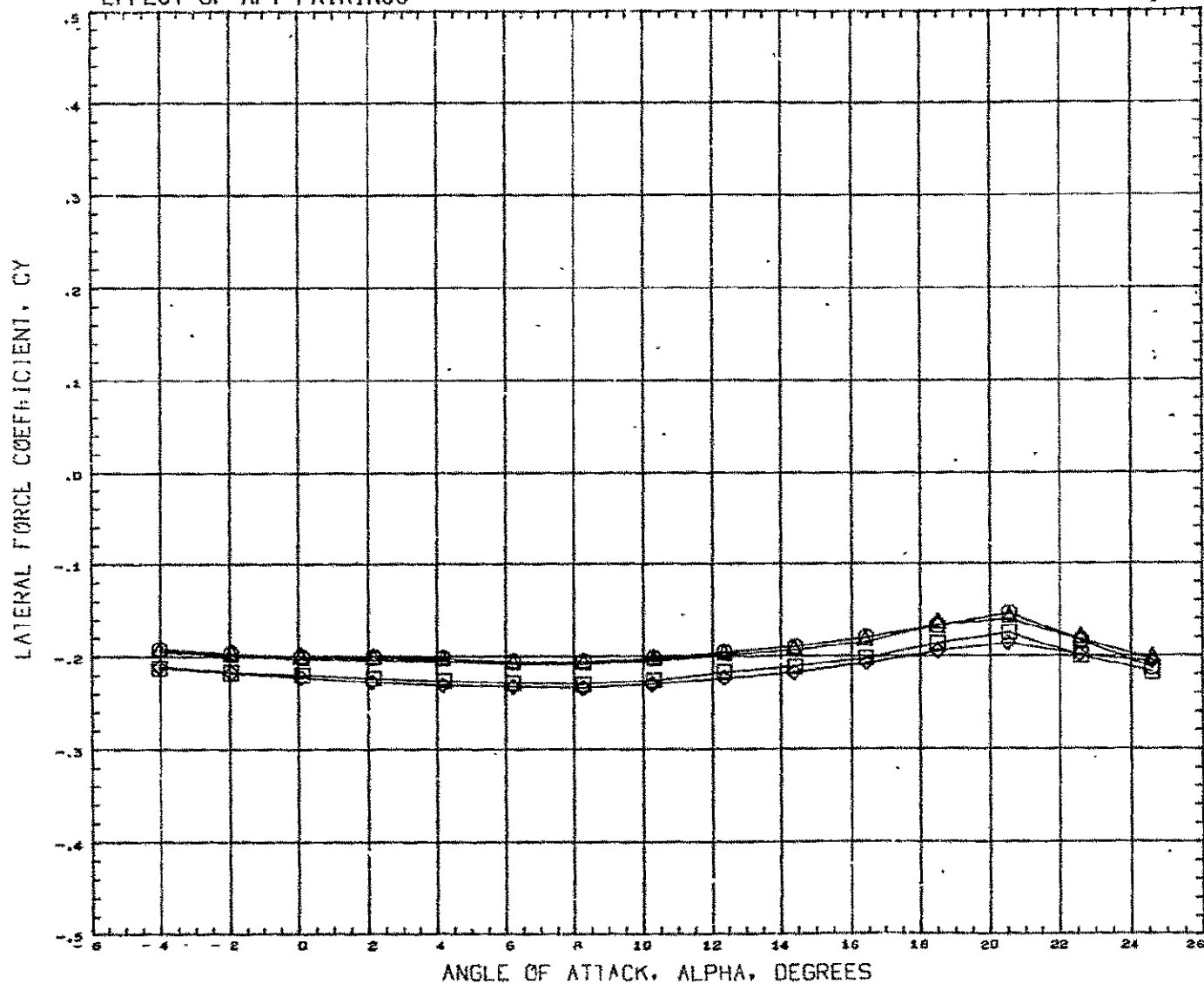
EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACVD15)	○	GDLST 587-1	B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
(ACVD10)	△	GDLST 587-1	B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2156	IN.
(ACVD13)	◇	GDLST 587-1	B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4490	IN.
(ACVD14)	□	GDLST 587-1	B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XHRP	33.4360	IN.
								YHRP	0.0000	IN.
								ZHRP	3.9580	IN.
								SCALE	0.0175	

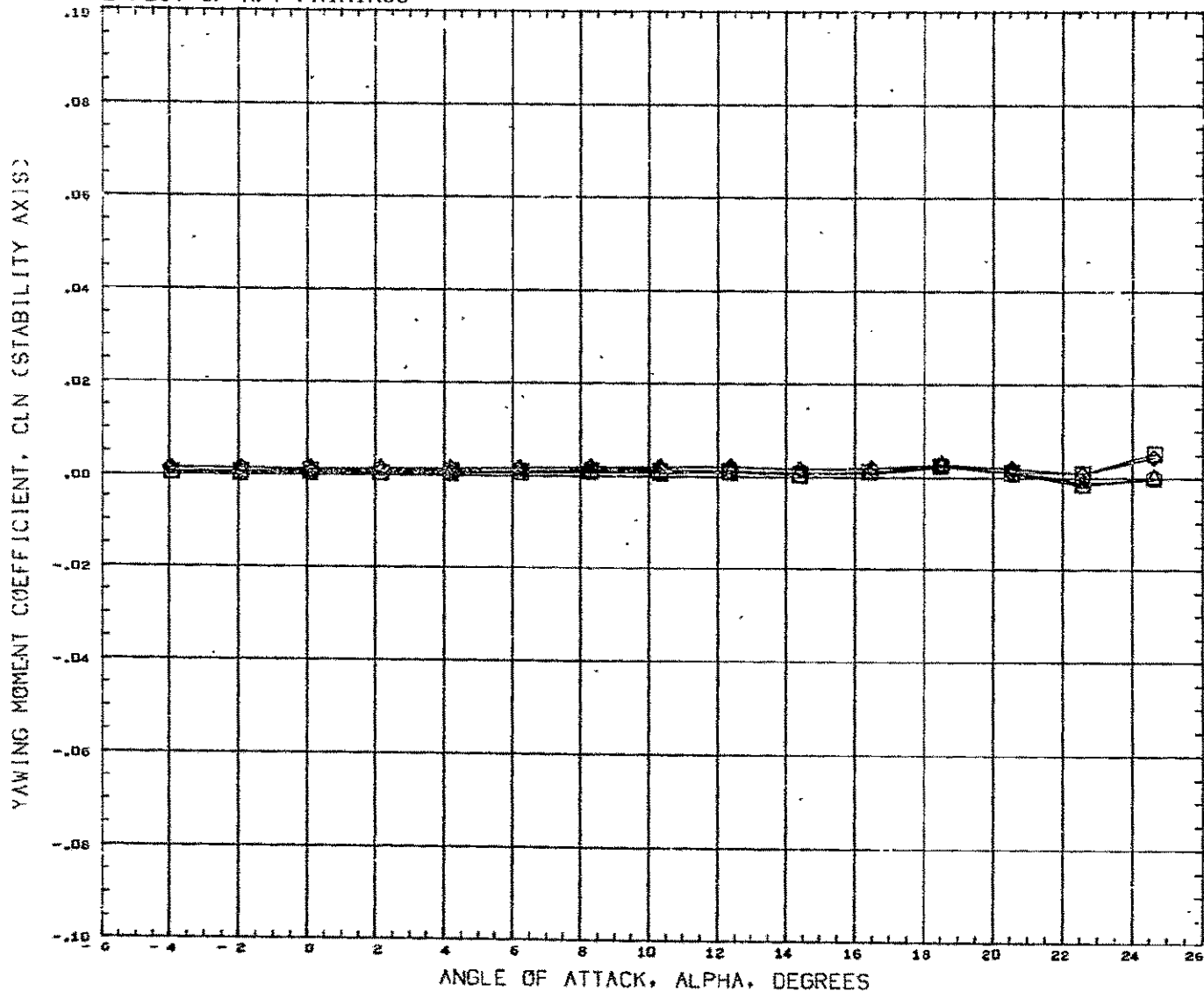
BETA 5.000

EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
ACV015	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
ACV010	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	13.2156	IN.
ACV013	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4470	IN.
ACV014	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

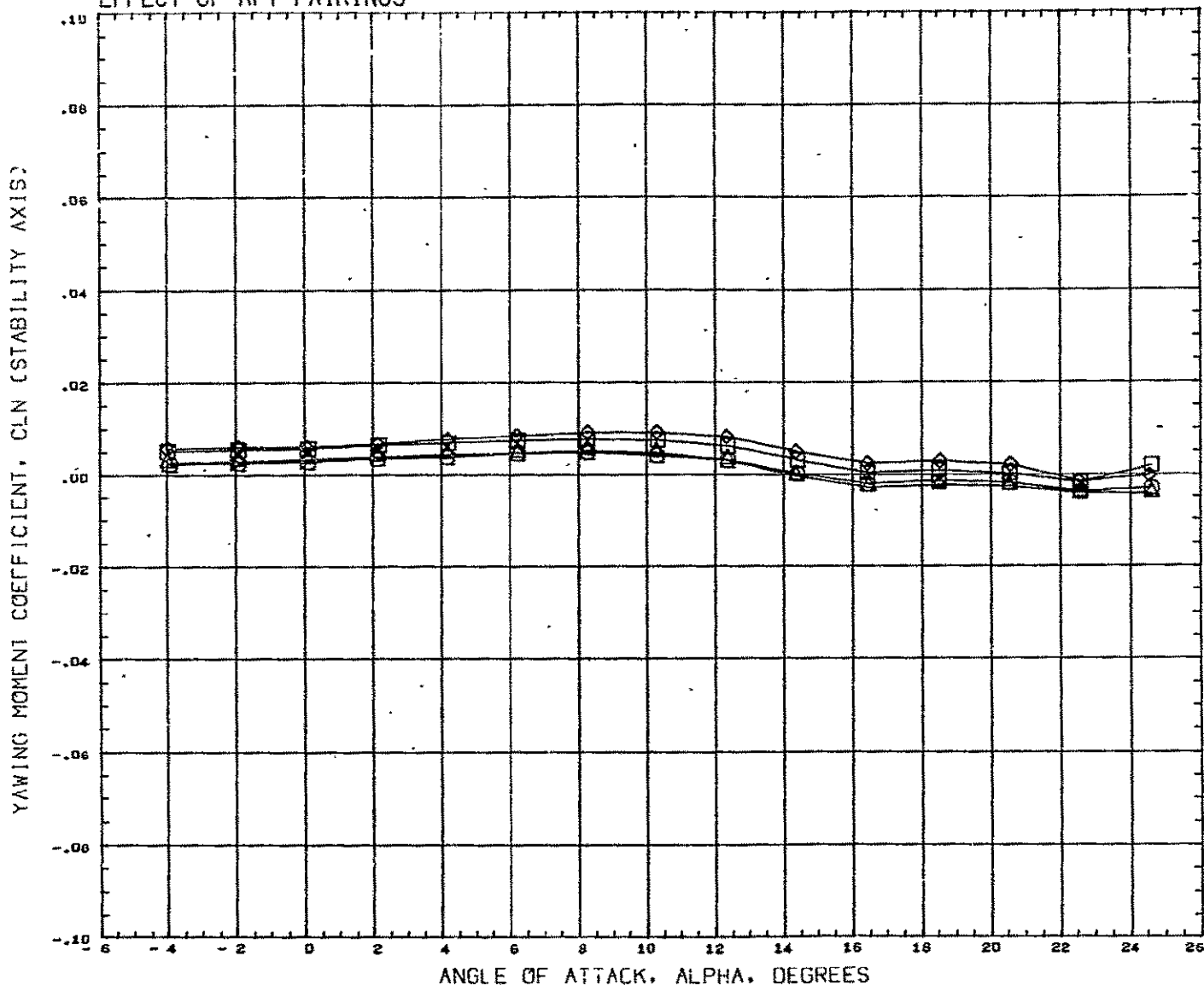
EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
IACVD15,	○	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
IACVD10,	△	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LPEF	15.2123 IN.
IACVD13,	⊗	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
IACVD14,	□	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XNRP	33.4360 IN.
							YNRP	0.0000 IN.
							ZNRP	3.9380 IN.
							SCALE	0.0175

BETA 0.000

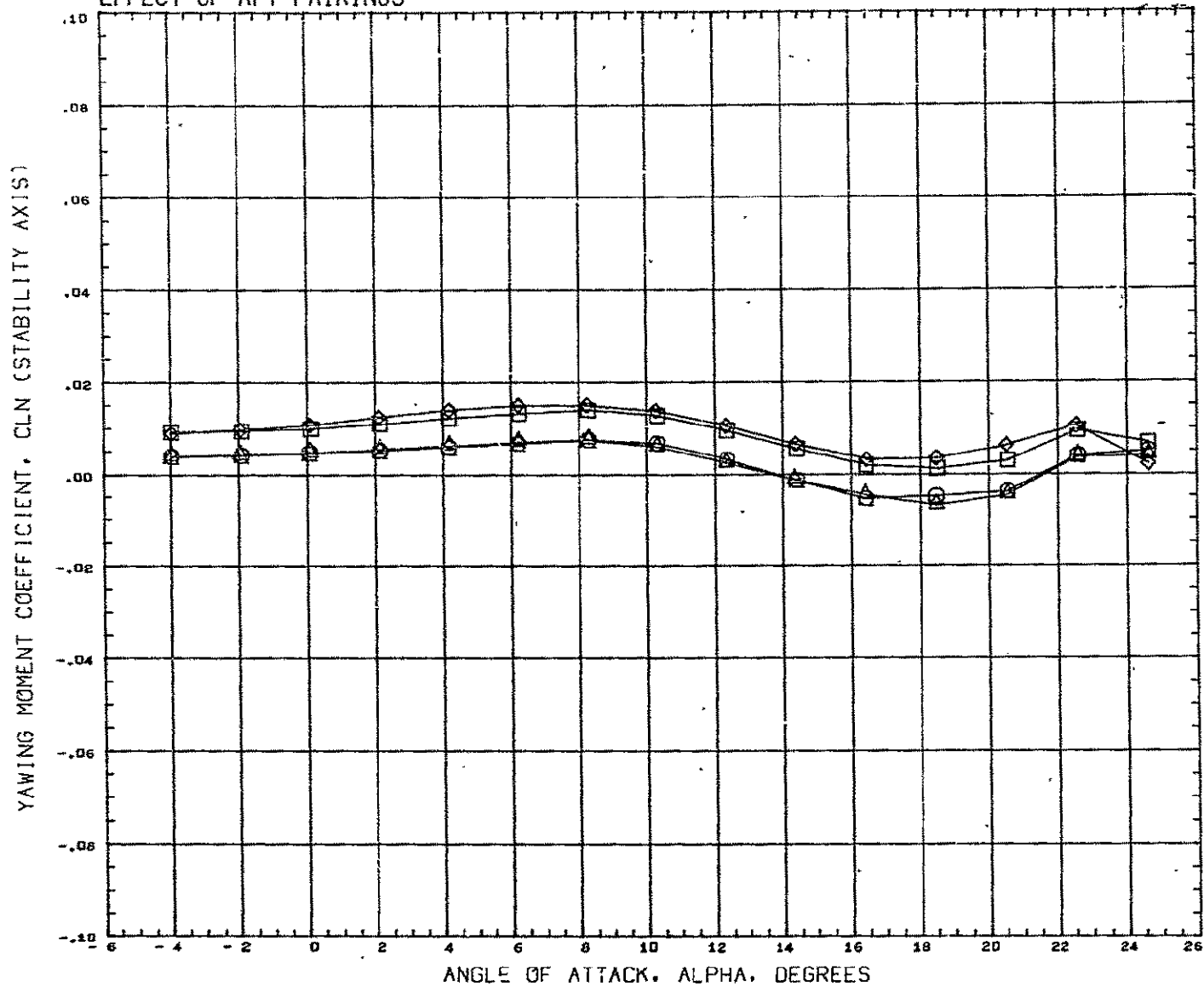
EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ACVD15)	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(ACVD10)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF 15.2153 IN.
(ACVD13)	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF 38.4400 IN.
(ACVD14)	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XHRP 33.4360 IN.
						YHRP 0.0000 IN.
						.E 3.9380 IN.
						0.0175

BETA 5.000

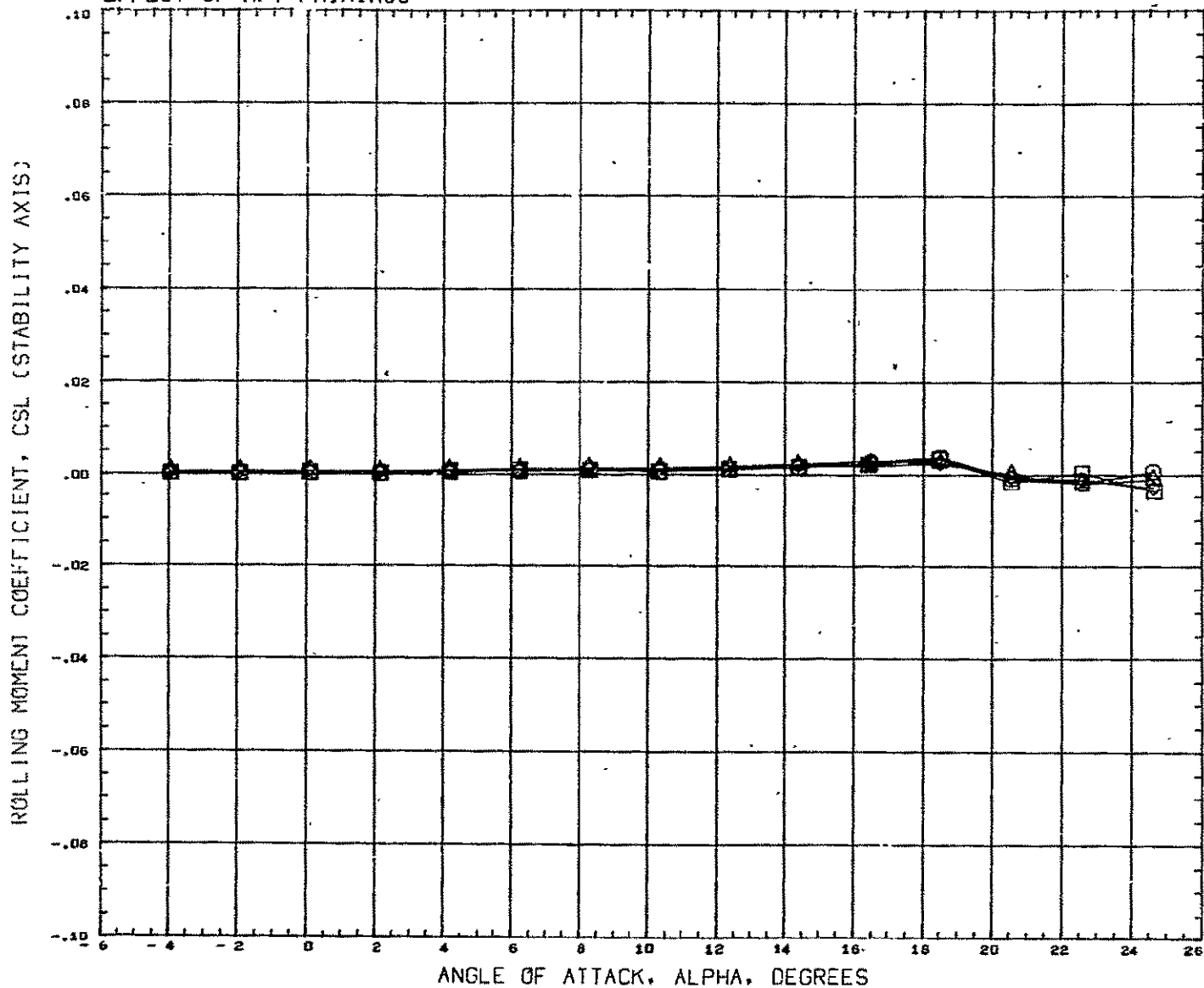
EFFECT OF AFT FAIRINGS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACVD15)	○	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004	59. IN
(ACVD16)	△	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2153	IN.
(ACVD13)	◇	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACVD14)	□	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	33.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9380	IN.
							SCALE	0.0175	

BETA 10.000

EFFECT OF AFT FAIRINGS

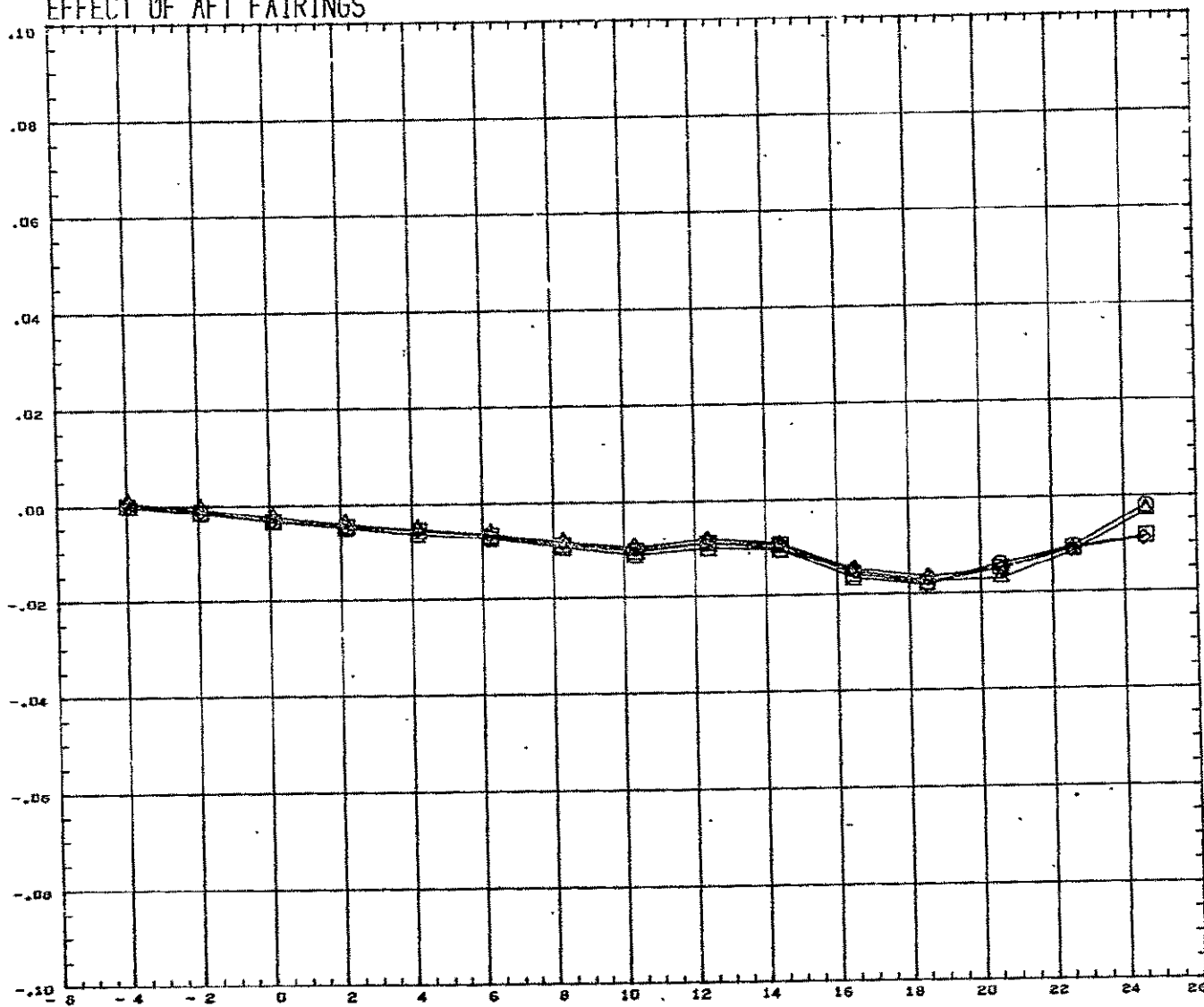


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
ACVD15	○	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
ACVD10	△	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LPEF	15.2153 IN.
ACVD13	◇	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
ACVD14	□	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XNRF	33.4360 IN.
							YHRF	0.0000 IN.
							ZHRF	3.9380 IN.
								0.0175

BETA 0.000

EFFECT OF AFT FAIRINGS

ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)

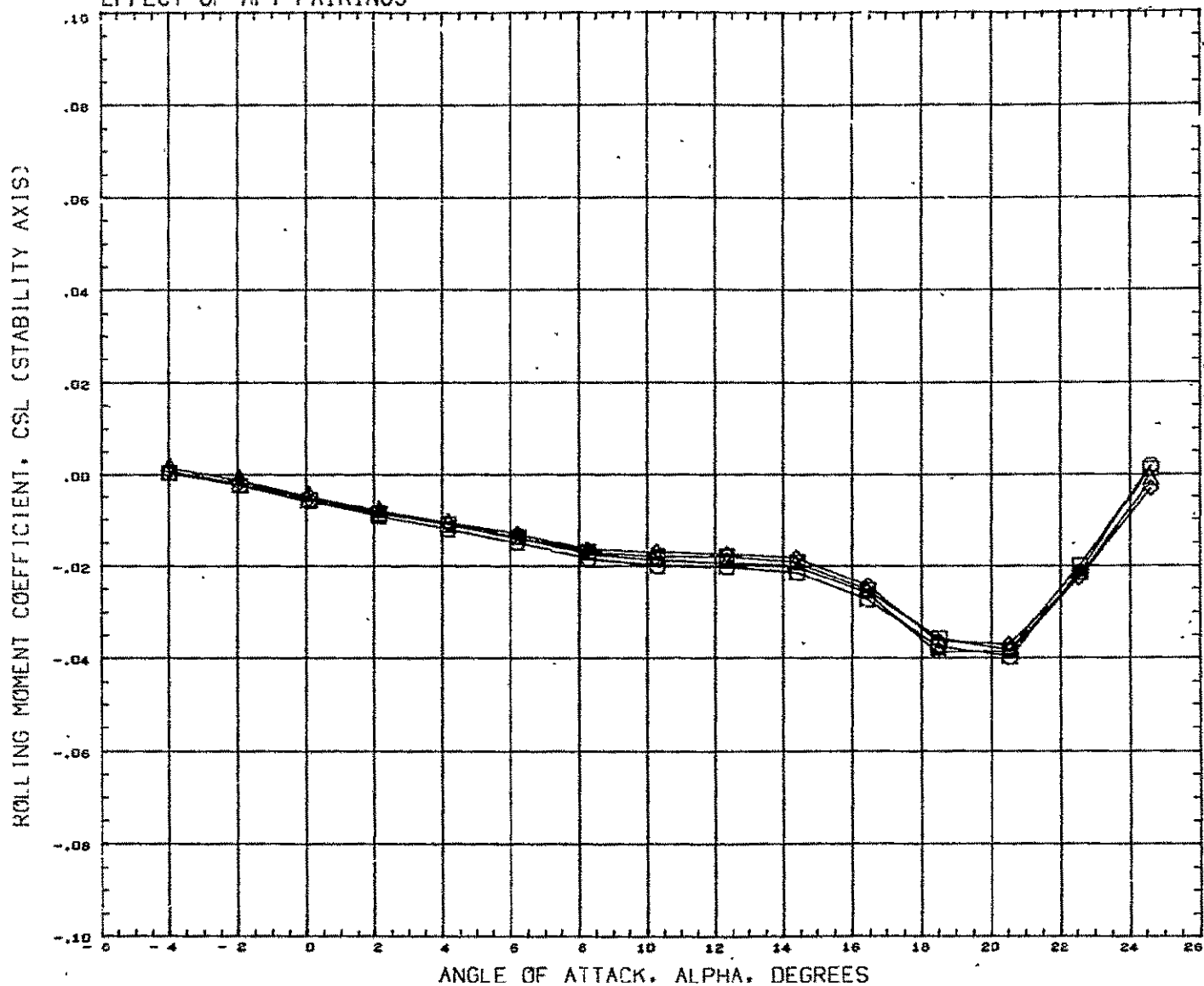


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANYTR	REFERENCE INFORMATION		
(ACVD15)	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.300	SQ. IN
(ACVD10)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2150	IN.
(ACVD13)	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
(ACVD14)	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRF	33.4360	IN.
						YMRF	0.0000	IN.
						ZMRF	3.9380	IN.
						SCALE	0.0175	

BETA 5.000

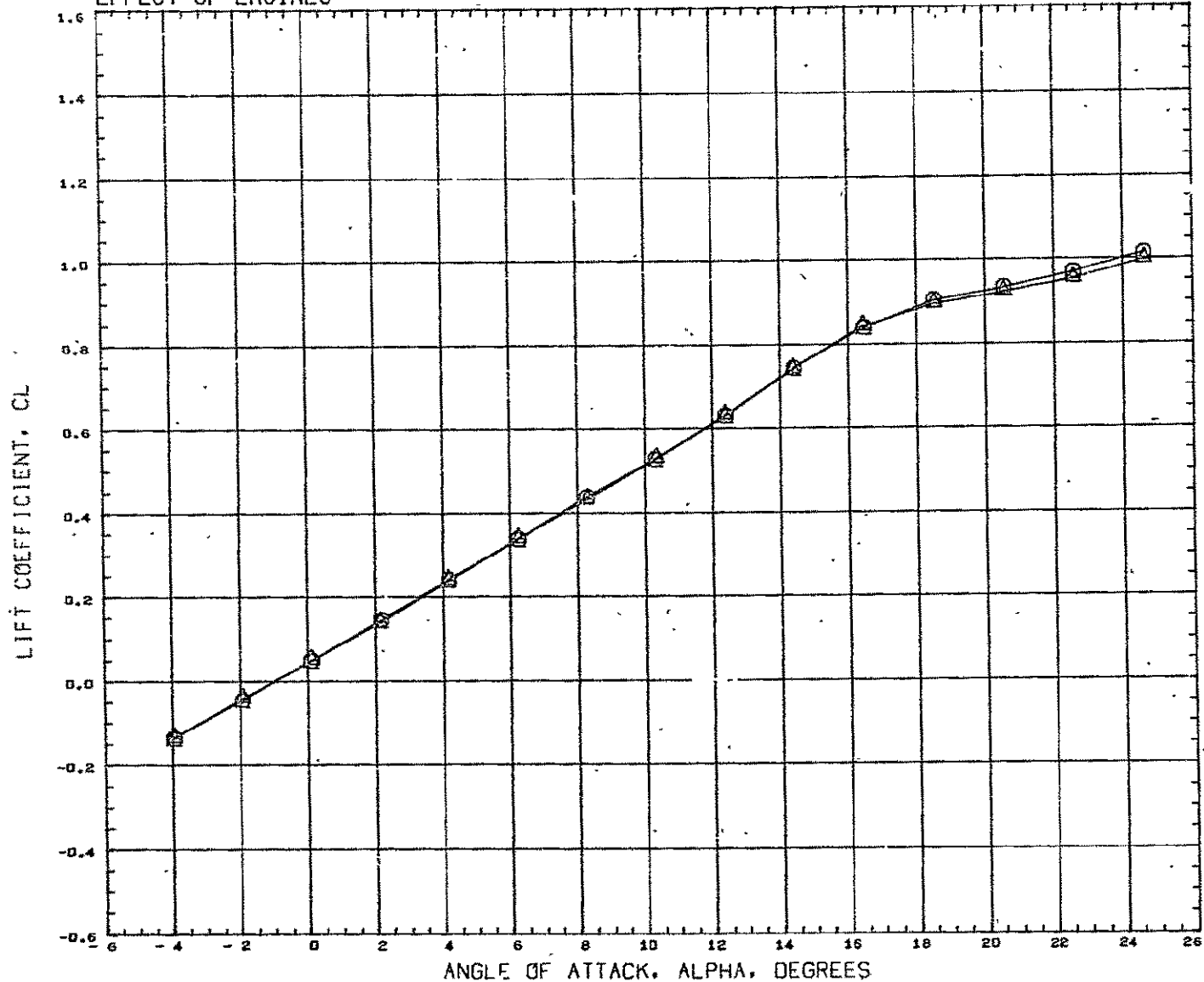
EFFECT OF AFT FAIRINGS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
IACV015	GDLST 587-1 B21V7C4E34W16 ROCKET FAIRING OFF	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
IACV010	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	16.2177 IN.
IACV013	GDLST 587-1 B21X2V7C4E34W16 FERRY CONE ON	0.000	0.000	0.000	0.000	SREF	30.4488 IN.
IACV014	GDLST 587-1 B21X3V7C4E34W16 SHROUD ON	0.000	0.000	0.000	0.000	XMRP	35.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	5.9380 IN.
						SCALE	0.0175

BETA 10.000

EFFECT OF ENGINES



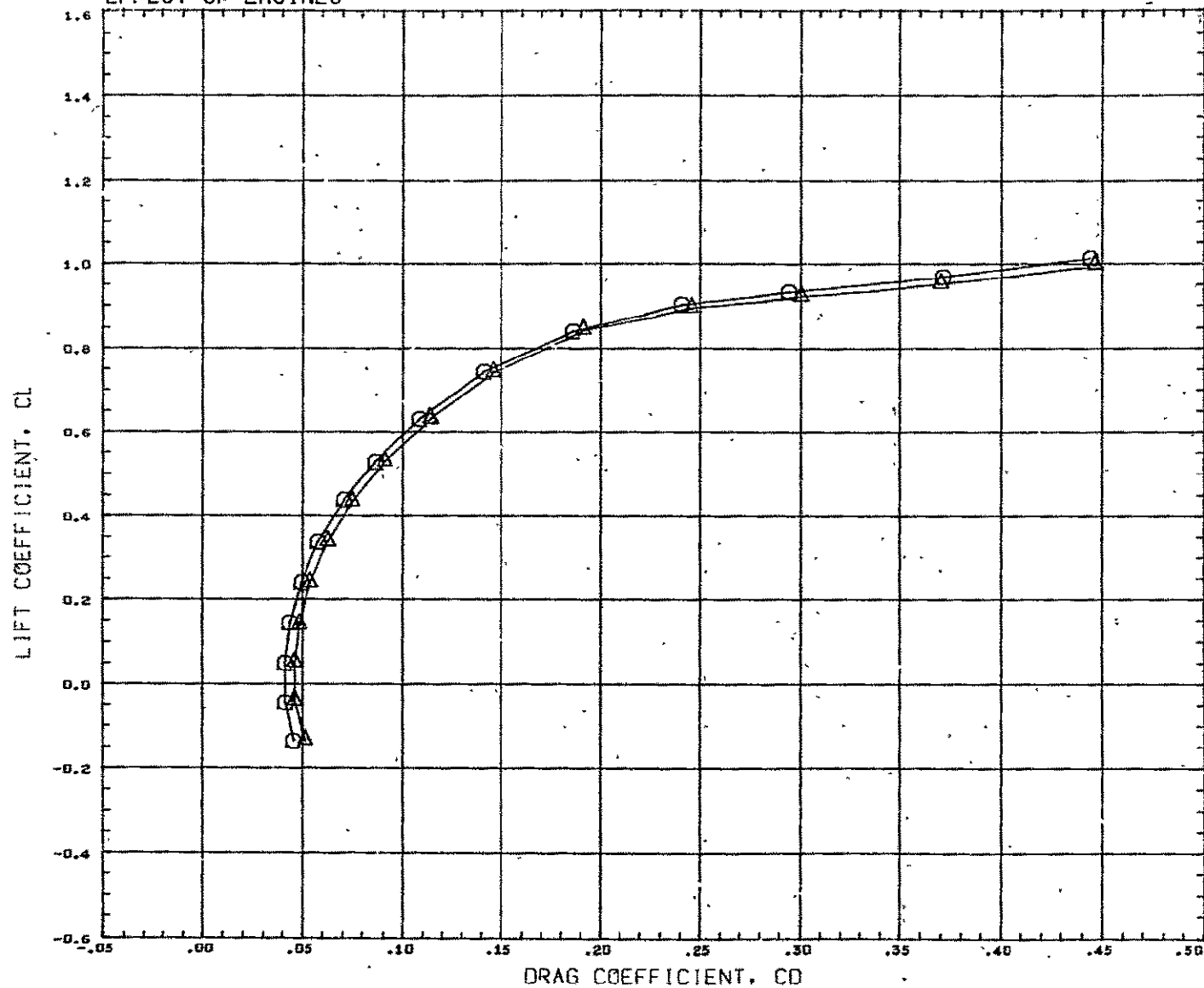
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (ECV004) C GDLST 587-1 B21X1V7C4W16
 (ECV010) A GDLST 587-1 B21X1V7C4E34W16

BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 0.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 380.3804 SQ. IN
 LREF 15.2150 IN.
 BREF 30.4400 IN.
 XMRP 33.4360 IN.
 YMRP 0.0000 IN.
 ZMRP 3.9380 IN.
 SCALE 0.0175

MACH 0.201

EFFECT OF ENGINES



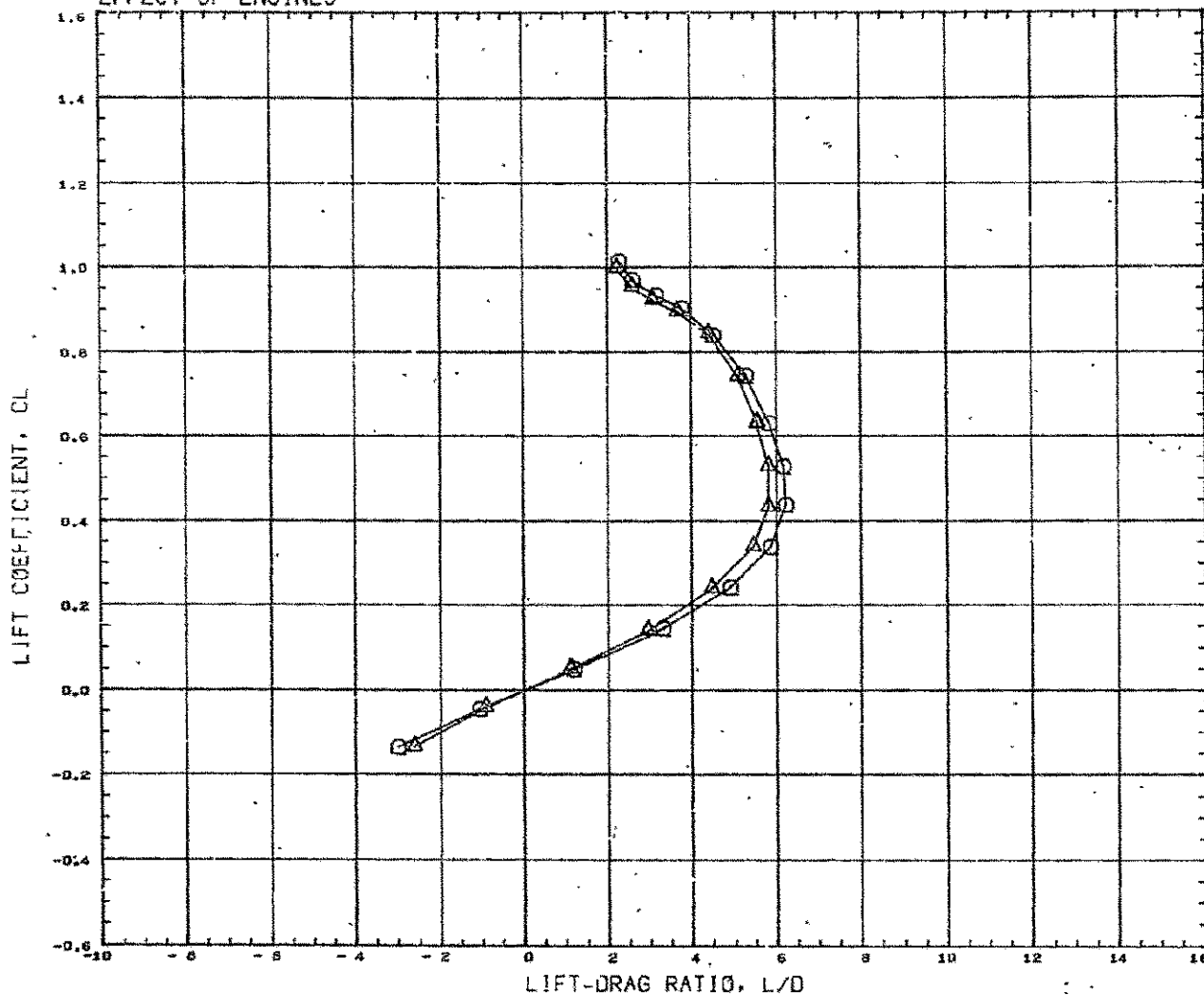
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
ECV004, ○	GDLST 587-1 B21XIV7C4W16
ECV010, △	GDLST 587-1 B21XIV7C4E34W16

BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION	
SREF	380.3001 SQ. IN
LREF	15.2150 IN.
BREF	30.4400 IN.
XMRP	33.4360 IN.
YMRP	0.0000 IN.
ZMRP	3.9380 IN.
SCALE	0.0175

MACH 0.201

EFFECT OF ENGINES

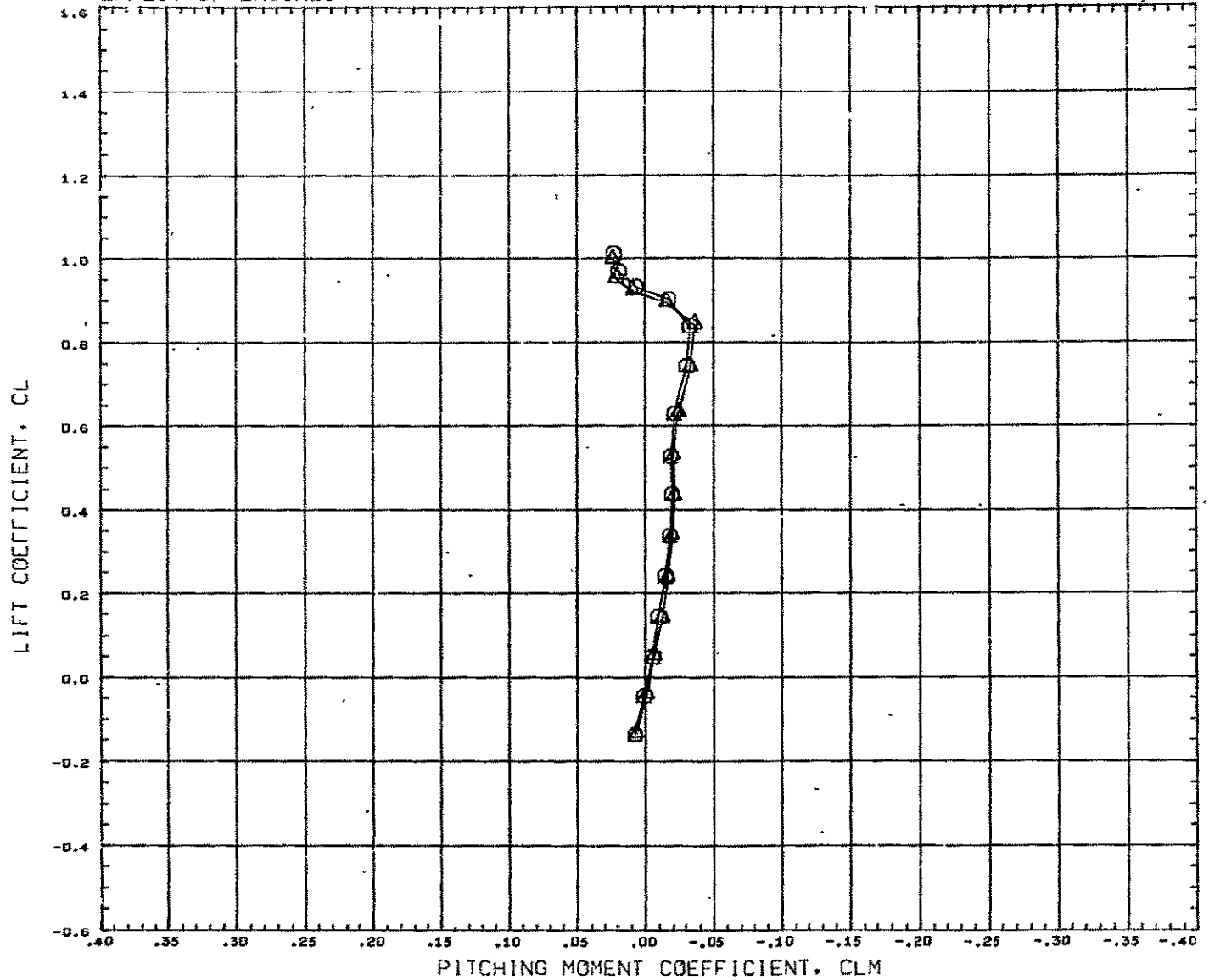


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 :ECV004, ○ GDLST 587-1 B21X1V7C4W16
 :ECV010, △ GDLST 587-1 B21/1V7C4E34W16

BETA	ELEVTR	AILERON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	300.300 IN.
0.000	0.000	0.000	0.000	LFEP	15.215 IN.
				BRFP	30.410 IN.
				XMRP	33.436 IN.
				YMRP	0.000 IN.
				ZMRP	3.938 IN.
				SCALE	0.0176

MACH 0.201

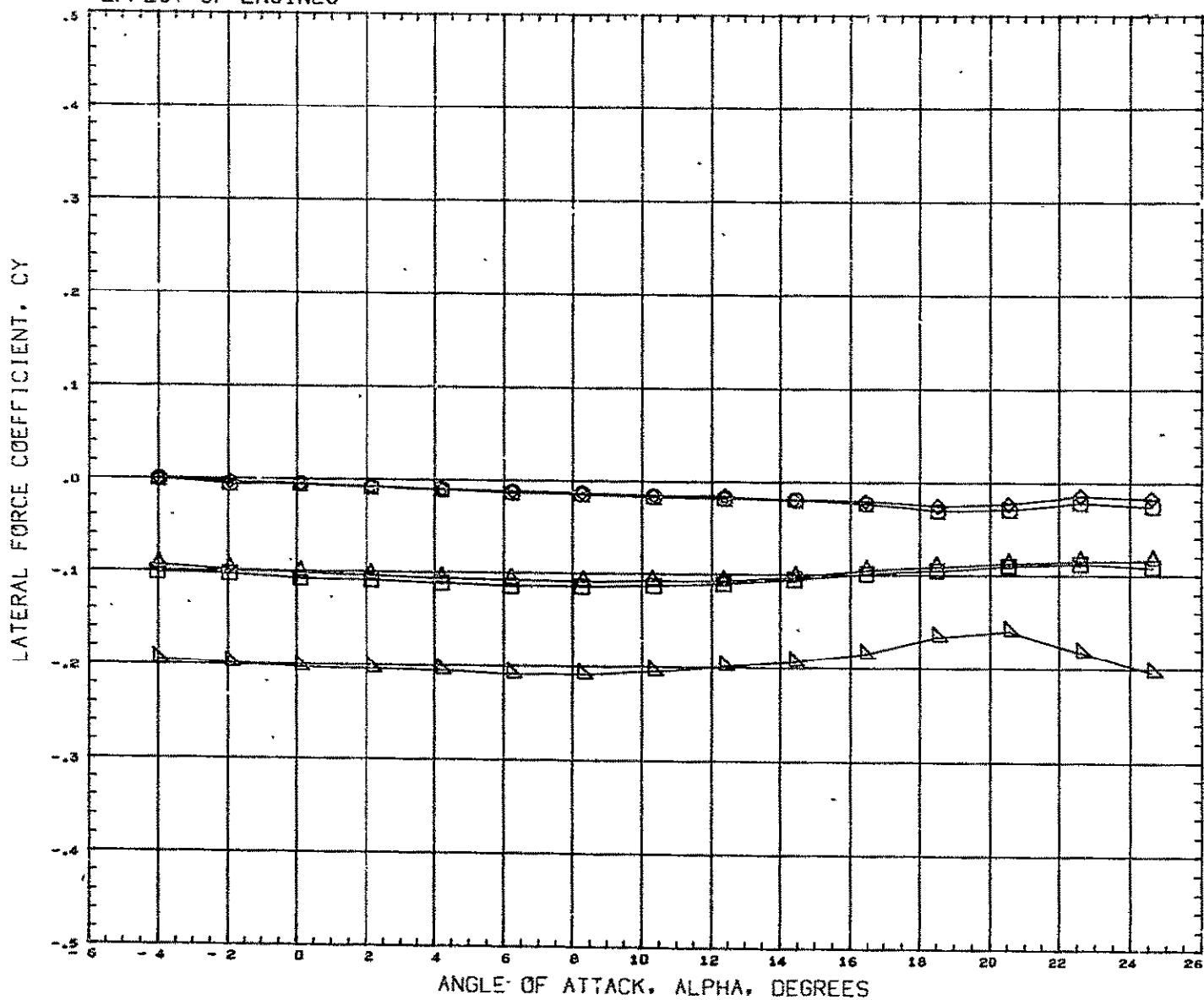
EFFECT OF ENGINES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
ECVD04	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
ECVG10	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	LREF	15.2133 IN.
						BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

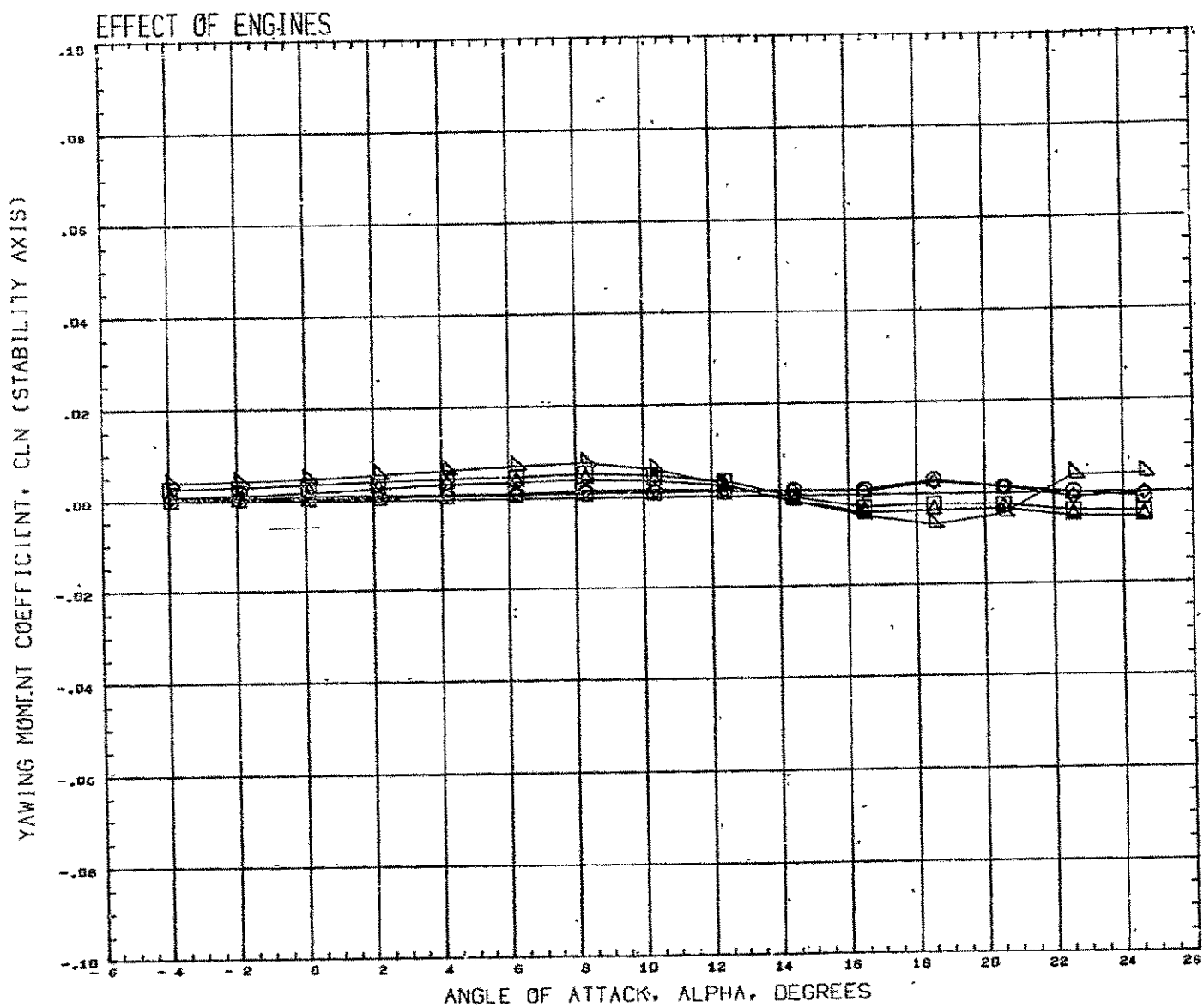
MACH 0.201

EFFECT OF ENGINES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
(ECV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(FCV004)	GDLST 587-1 B21X1V7C4W16	5.000	0.000	0.000	0.000	LREF	15.215" IN.
(ECV010)	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(FCV010)	GDLST 587-1 B21X1V7C4E34W16	5.000	0.000	0.000	0.000	XHRP	33.4360 IN.
(GCV010)	GDLST 587-1 B21X1V7C4E34W16	15.000	0.000	0.000	0.000	YHRP	0.0000 IN.
						ZHRP	3.9380 IN.
						SCALE	0.0175

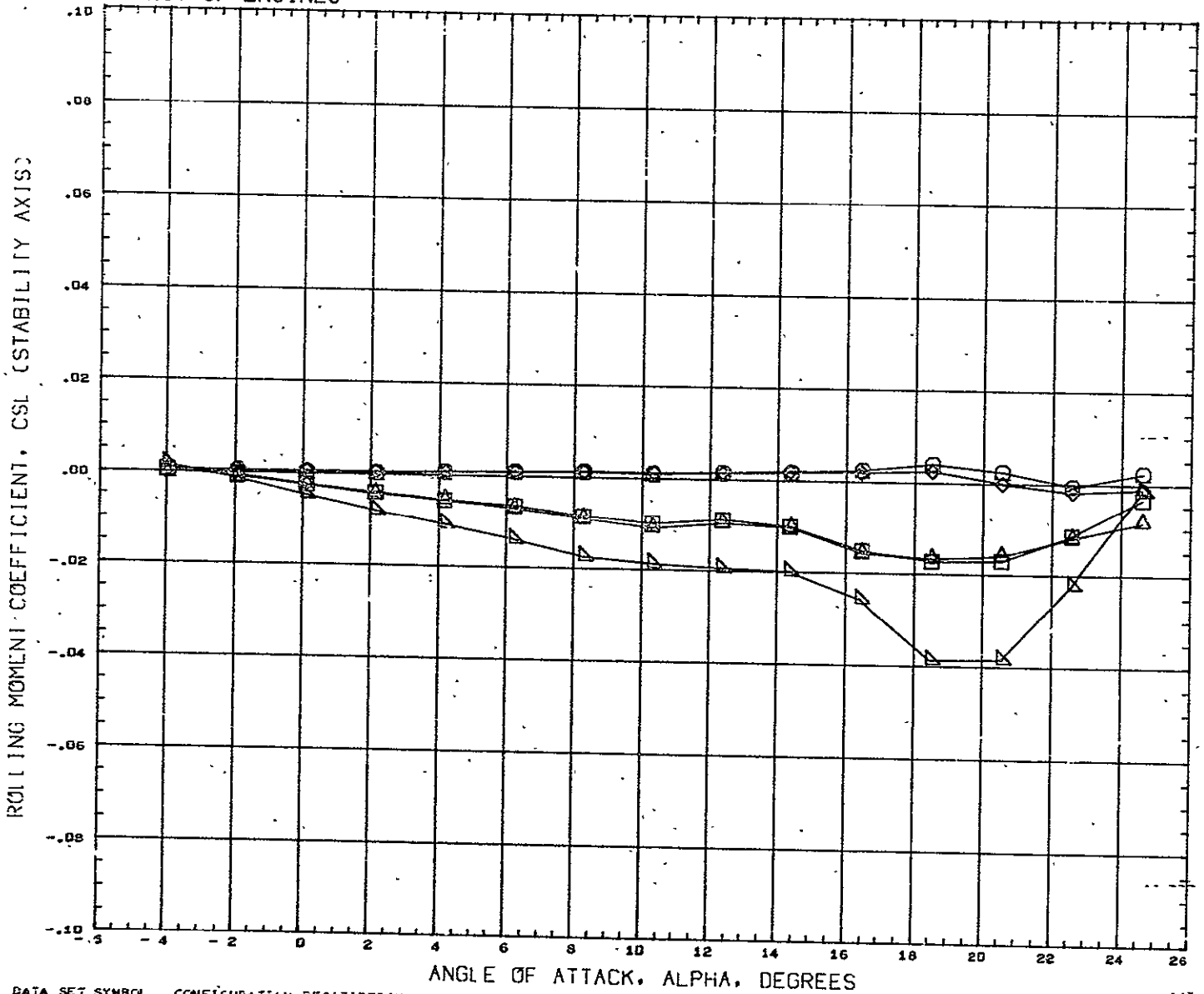
MACH 0.201



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
1ECV004,	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
1FCV004,	GDLST 587-1 B21X1V7C4W16	5.000	0.000	0.000	0.000	LREF	15.2151 IN.
1ECV010,	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
1FCV010,	GDLST 587-1 B21X1V7C4E34W16	5.000	0.000	0.000	0.000	XHRP	33.4360 IN.
1ECV010,	GDLST 587-1 B21X1V7C4E34W16	10.000	0.000	0.000	0.000	YHRP	0.0000 IN.
						ZHRP	5.9780 IN.
						CRATE	0.0175

MACH 0.201

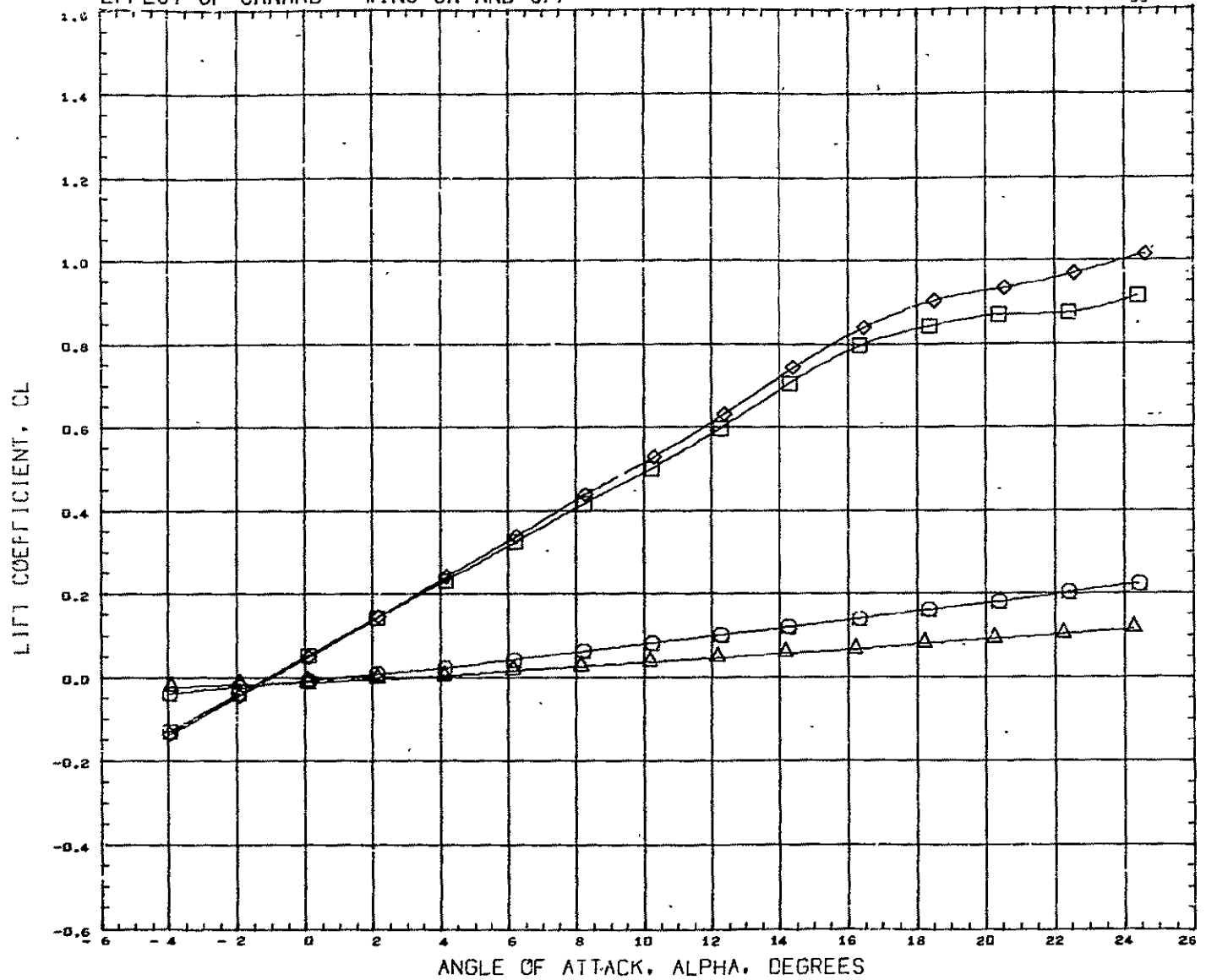
EFFECT OF ENGINES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
ECV004, C	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	SREF	380.3001	SQ. IN
FCV004, O	GDLST 587-1 B21X1V7C4W16	5.000	0.000	0.000	0.000	LREF	15.2150	IN.
ECV010, A	GDLST 587-1 B21X1V7C4E34W16	0.000	0.000	0.000	0.000	BREF	30.4400	IN.
FCV010, N	GDLST 587-1 B21X1V7C4E34W16	5.000	0.000	0.000	0.000	XHRP	33.4360	IN.
		10.000	0.000	0.000	0.000	YHRP	0.0000	IN.
						ZHRP	3.9380	IN.
						SCALE	0.0175	

MACH 0.201

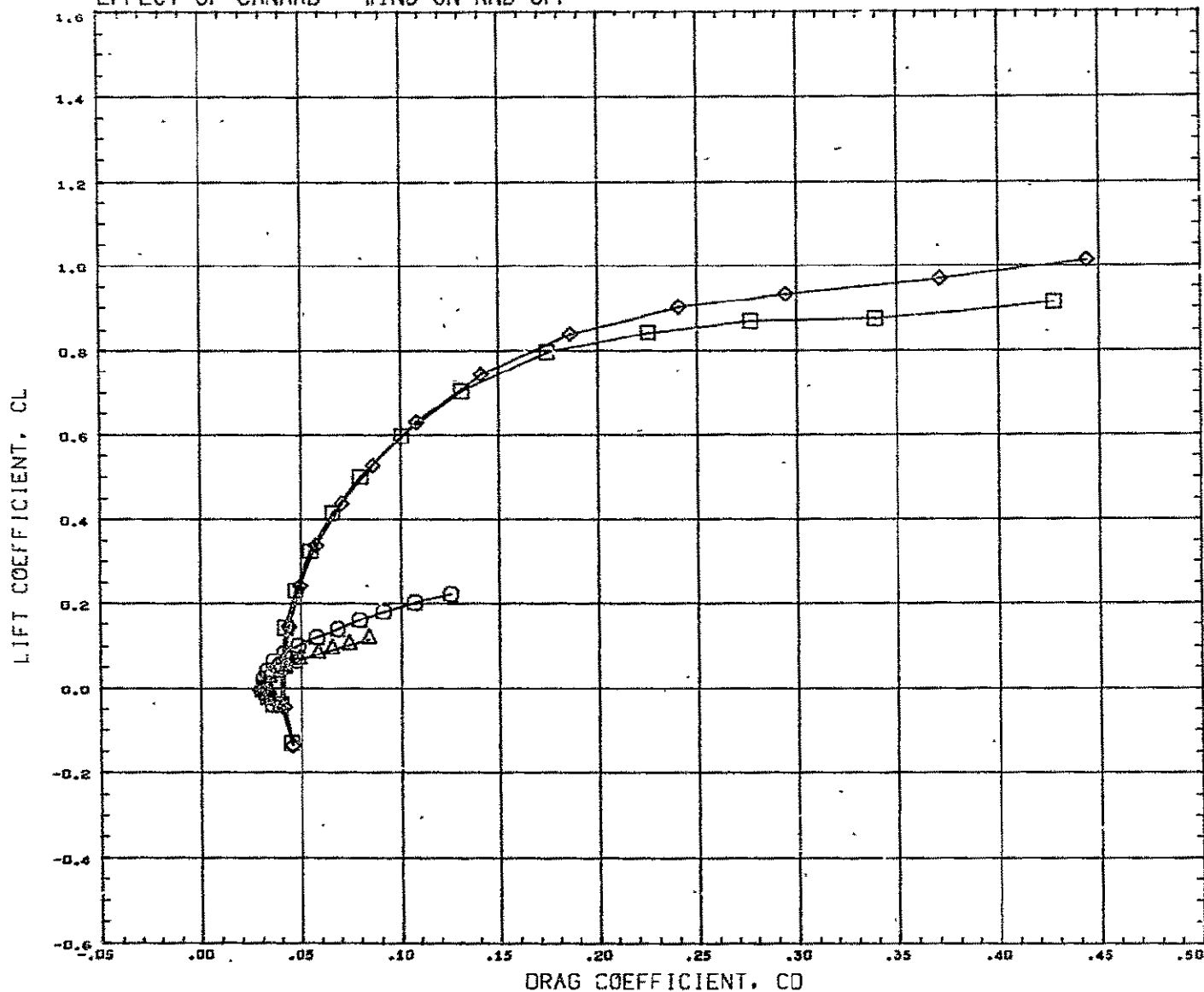
EFFECT OF CANARD - WING ON AND OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(BCV007)	GDLST 507-1 B21X1V7C4	0.000	0.000	0.000	0.000	SREF	300.3004 SQ. IN
(BCV008)	GDLST 507-1 B21X1V7	0.000	0.000	0.000	0.000	LPEF	15.2155 IN.
(BCV004)	GDLST 507-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(BCV056)	GDLST 507-1 B21X1V7W16	0.000	0.000	0.000	0.000	XHRF	33.4360 IN.
						YHRF	0.0000 IN.
						ZHRF	3.9380 IN.
						SCALE	0.0175

BETA 0.000

EFFECT OF CANARD - WING ON AND OFF



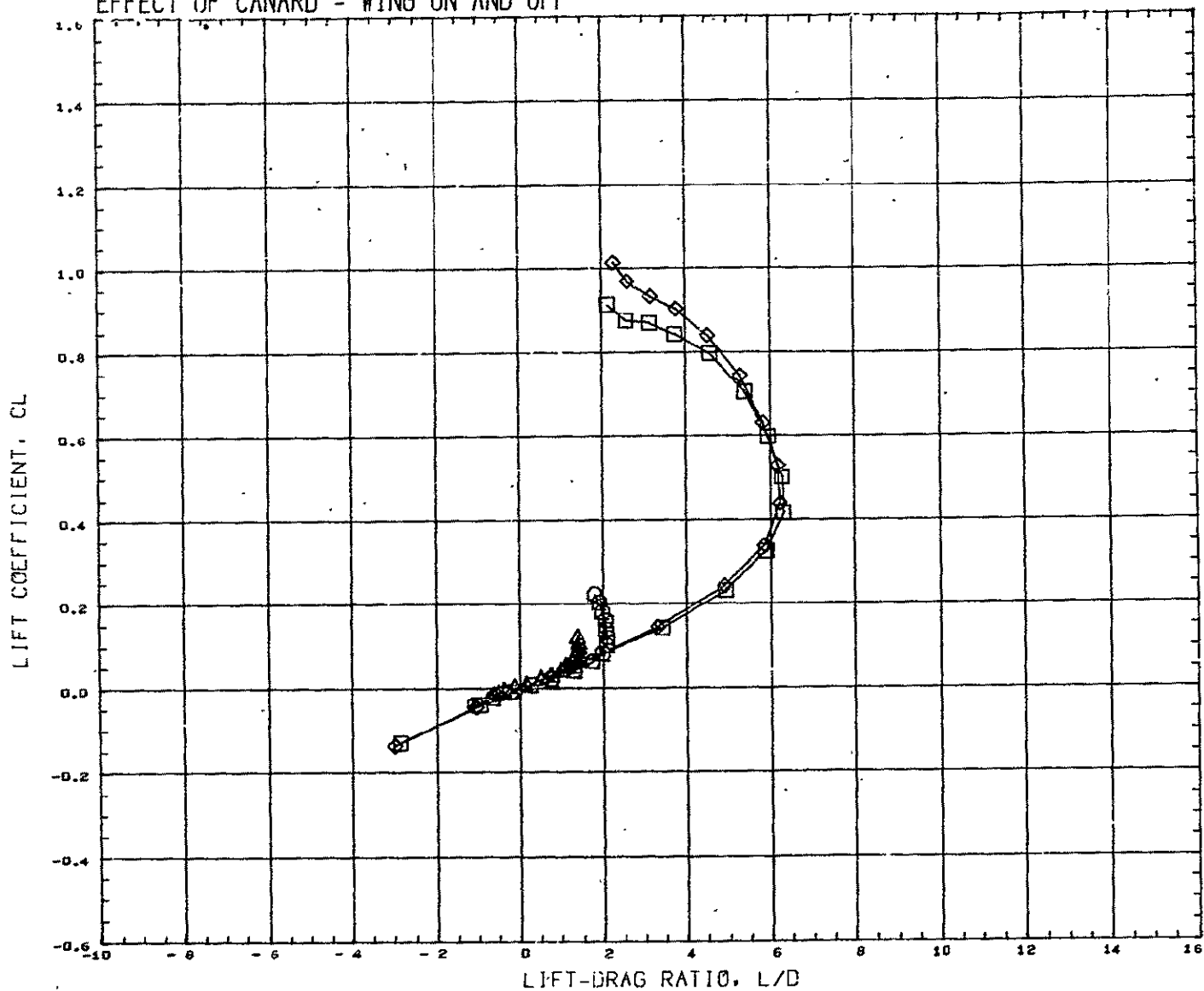
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(BCV007)	GDLST 587-1	B21X1V7C4
(BCV008)	GDLST 587-1	B21X1V7
(BCV004)	GDLST 587-1	B21X1V7C4W16
(BCV056)	GDLST 587-1	B21X1V7W16

DE = 0

ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
0.000	0.000	0.000	0.000	LREF 15.2122 IN.
0.000	0.000	0.000	0.000	BREF 30.4400 IN.
0.000	0.000	0.000	0.000	XMRP 33.4360 IN.
0.000	0.000	0.000	0.000	YMRP 0.0000 IN.
0.000	0.000	0.000	0.000	ZMRP 3.9380 IN.
0.000	0.000	0.000	0.000	SCALE 0.0175

BETA 0.000

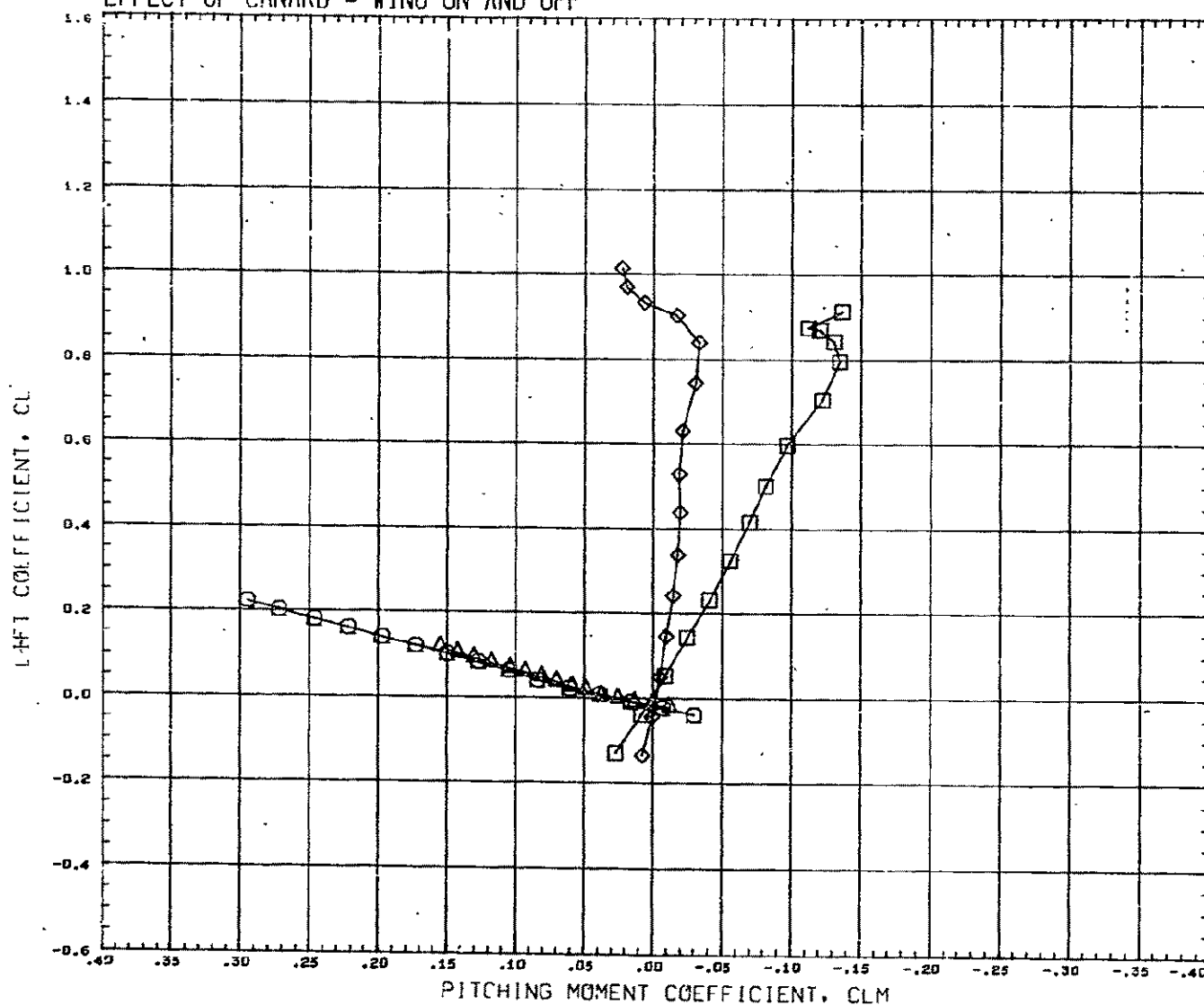
EFFECT OF CANARD - WING ON AND OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(BCV007)	GDLST 587-1 B21X1V7C4	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(BCV008)	GDLST 587-1 B21X1V7	0.000	0.000	0.000	0.000	LRFF	15.2150 IN.
(BCV004)	GDLST 587-1 B21X1V7C4W16	0.000	0.000	0.000	0.000	BREF	30.4400 IN.
(BCV056)	GDLST 587-1 B21X1V7W16 DE = 0	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

BETA 0.000

EFFECT OF CANARD - WING ON AND OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
BCV007	GDLST 587-1 821X1V7C4
BCV008	GDLST 587-1 821X1V7
BCV004	GDLST 587-1 821X1V7C4W16
BCV056	GDLST 587-1 821X1V7W16

PITCHING MOMENT COEFFICIENT, CLM

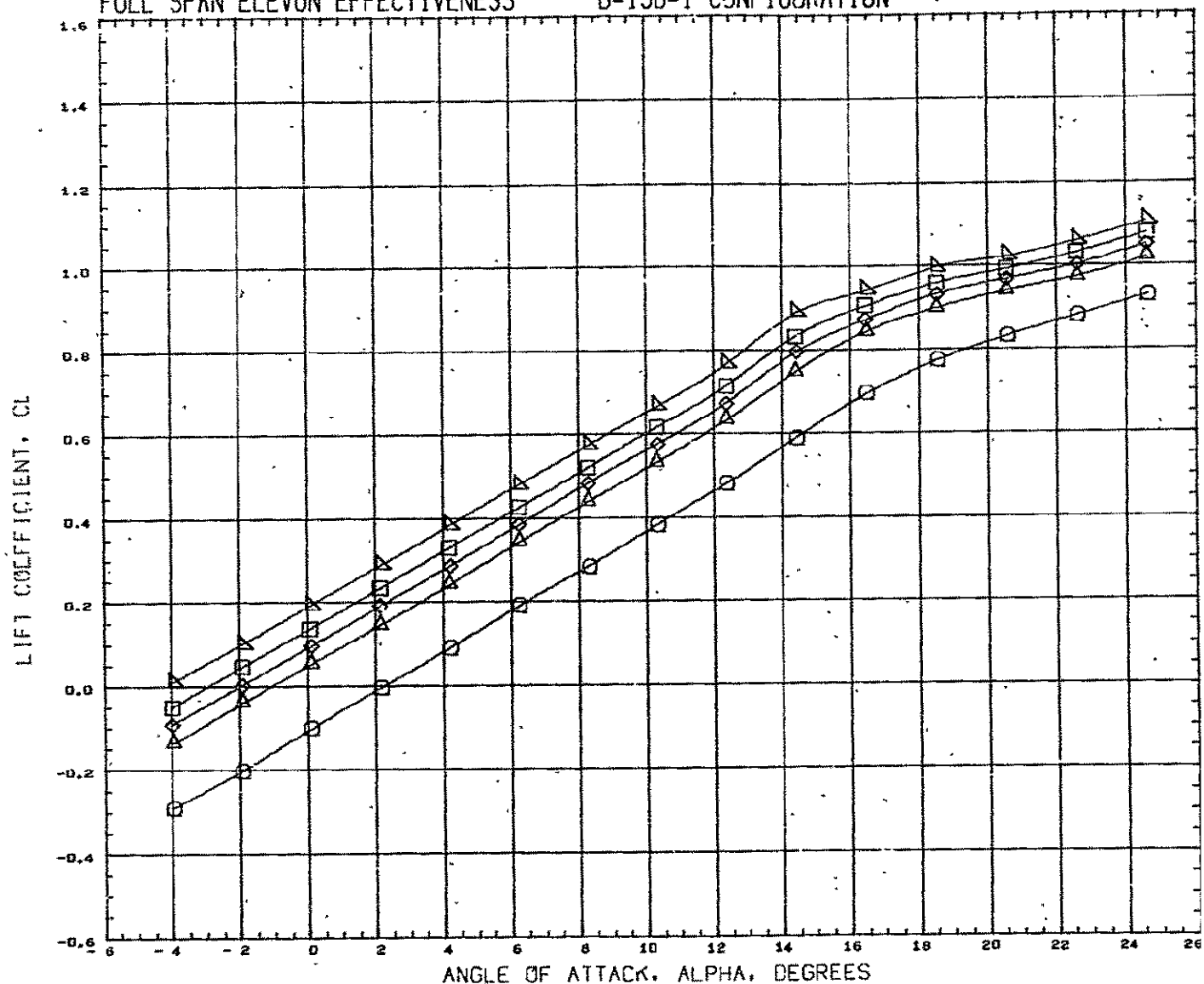
ELEVTR	AILRON	RUDDER	CANYTR
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	380.300	90. IN
LREF	15.215	IN.
BREF	30.4400	IN.
XMRP	35.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

BETA 0.000

FULL SPAN ELEVON EFFECTIVENESS

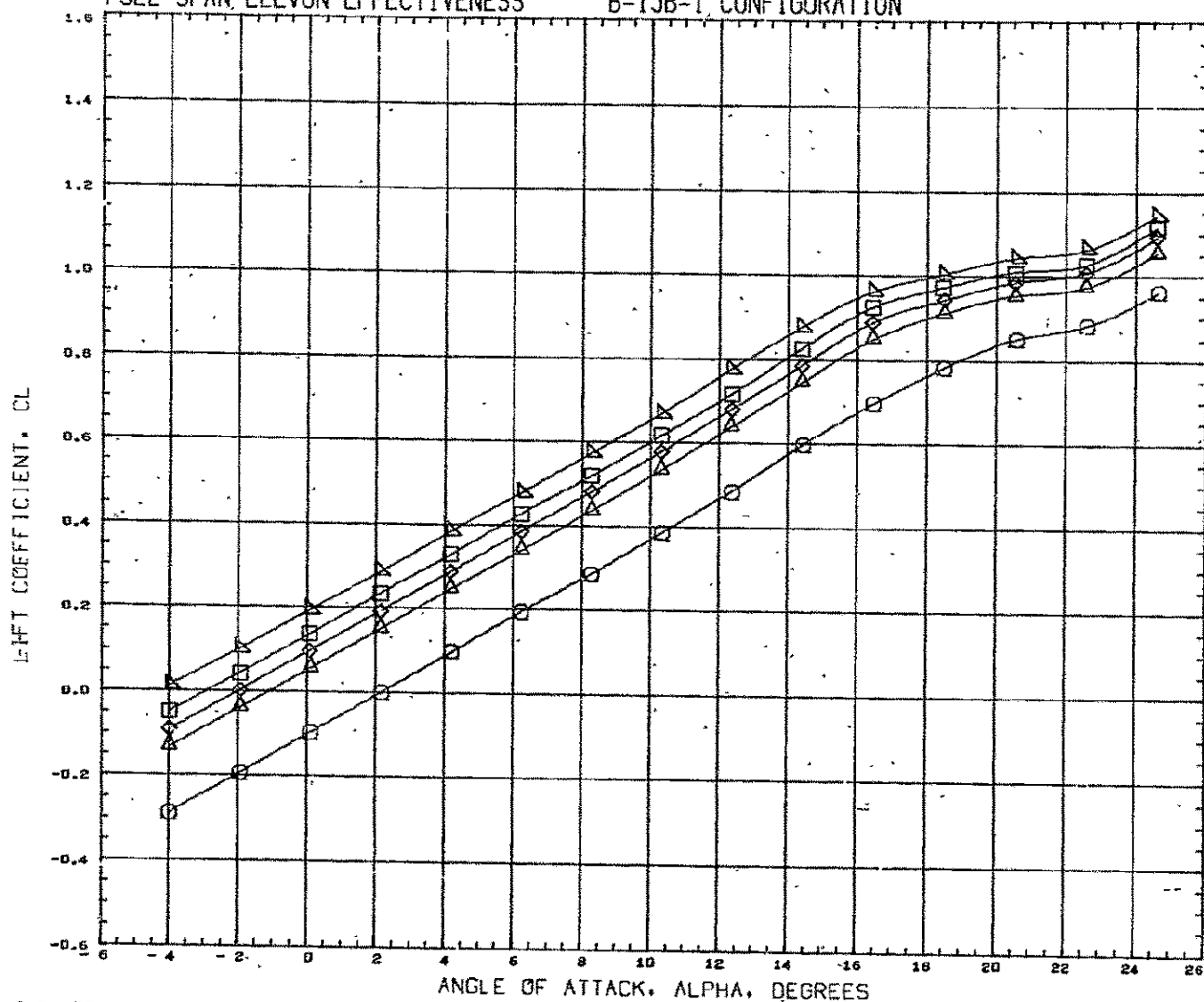
B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANYTR	REFERENCE INFORMATION	
(ACV021)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = -10	-10.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV022)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ACV023)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 3	3.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ACV024)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 6	6.000	0.000	0.000	0.000	YMRP	33.4360 IN.
(ACV025)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 10	10.000	0.000	0.000	0.000	ZMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

BETA 0.000

FULL SPAN ELEVON EFFECTIVENESS B-15B-1 CONFIGURATION

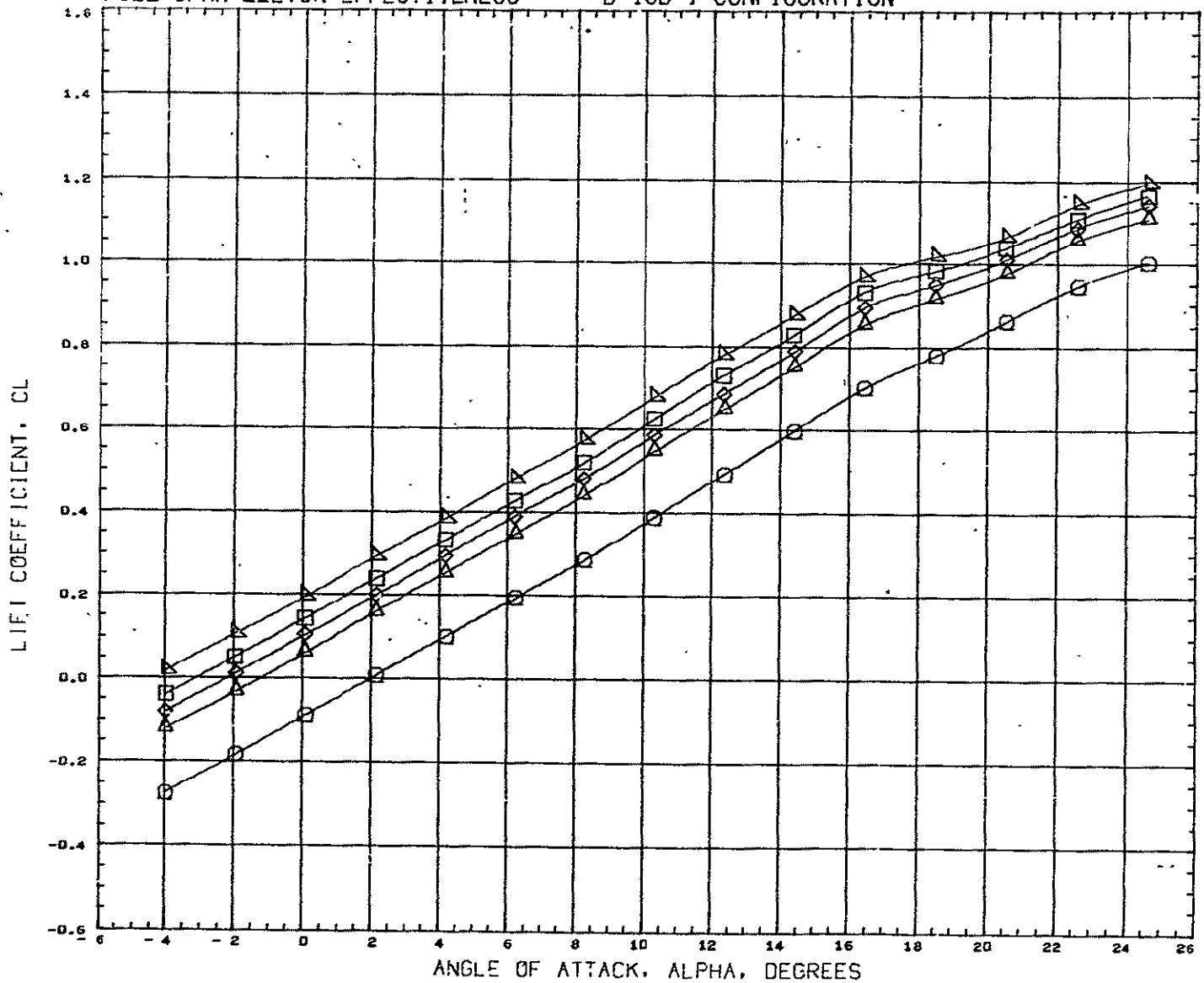


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ACVD21)	GDLST 587-1 B21X1C4V7W16	0	-10	-10.000	0.000	0.000	0.000	SREF 380.300A SQ. IN
(ACVD22)	GDLST 587-1 B21X1C4V7W16	0	0	0.000	0.000	0.000	0.000	LREF 15.215 IN.
(ACVD23)	GDLST 587-1 B21X1C4V7W16	0	5	3.000	0.000	0.000	0.000	BREF 30.4400 IN.
(ACVD24)	GDLST 587-1 B21X1C4V7W16	0	6	6.000	0.000	0.000	0.000	XMRP 33.4360 IN.
(ACVD25)	GDLST 587-1 B21X1C4V7W16	0	10	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
								ZMRP 3.9360 IN.
								SCALE 0.0175

BETA 5.000

FULL SPAN ELEVON EFFECTIVENESS

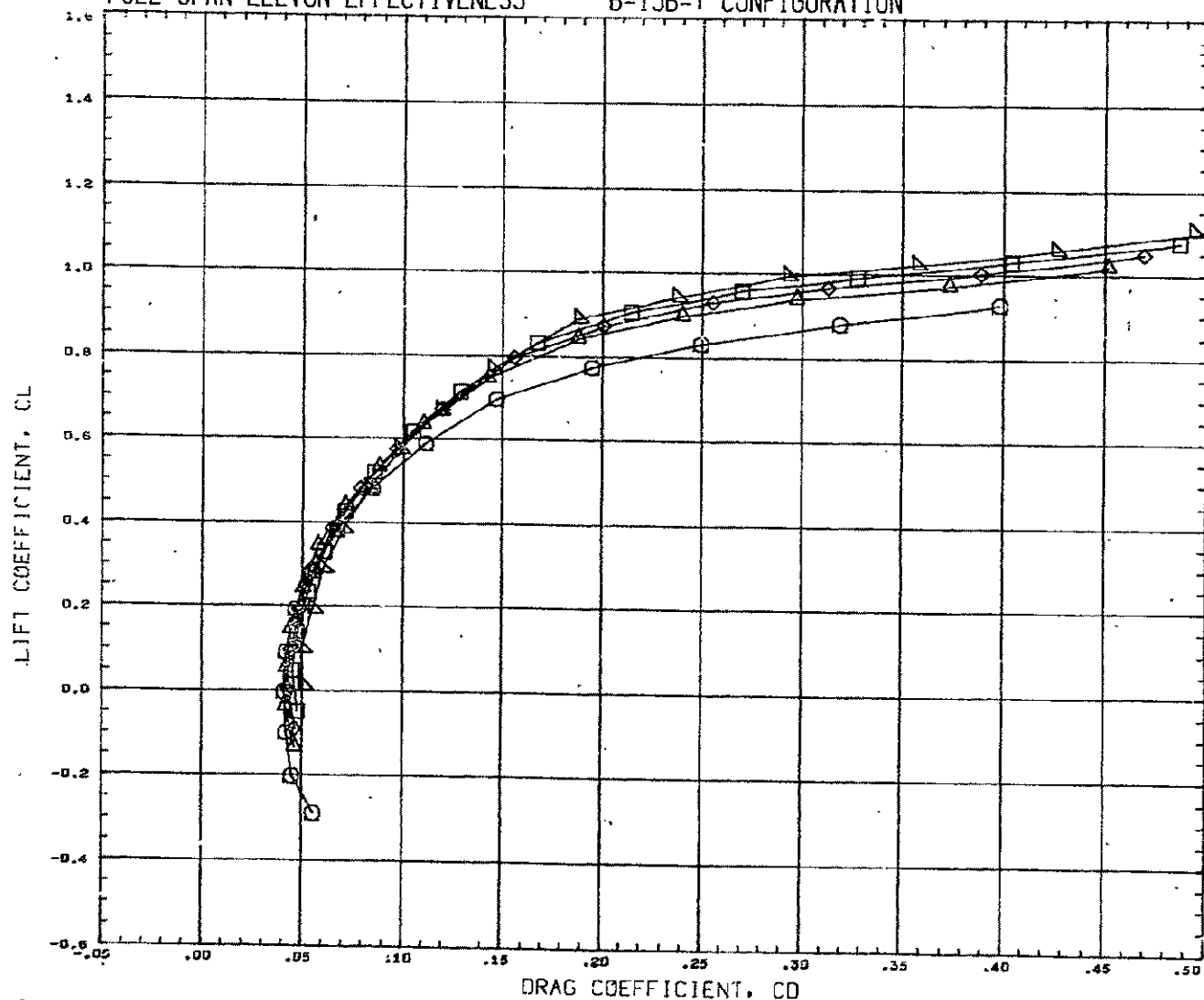
B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ACV021)	6DLST 587-1 B21X1C4V7W16	0	-10	-10.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(ACV022)	6DLST 587-1 B21X1C4V7W16	0	0	0.000	0.000	0.000	0.000	LREF 15.215 IN.
(ACV023)	6DLST 587-1 B21X1C4V7W16	0	3	3.000	0.000	0.000	0.000	BREF 30.4400 IN.
(ACV024)	6DLST 587-1 B21X1C4V7W16	0	6	6.000	0.000	0.000	0.000	XMRP 33.4560 IN.
(ACV025)	6DLST 587-1 B21X1C4V7W16	0	10	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
								ZMRP 3.9380 IN.
								SCALE 0.0175

BETA 10.000

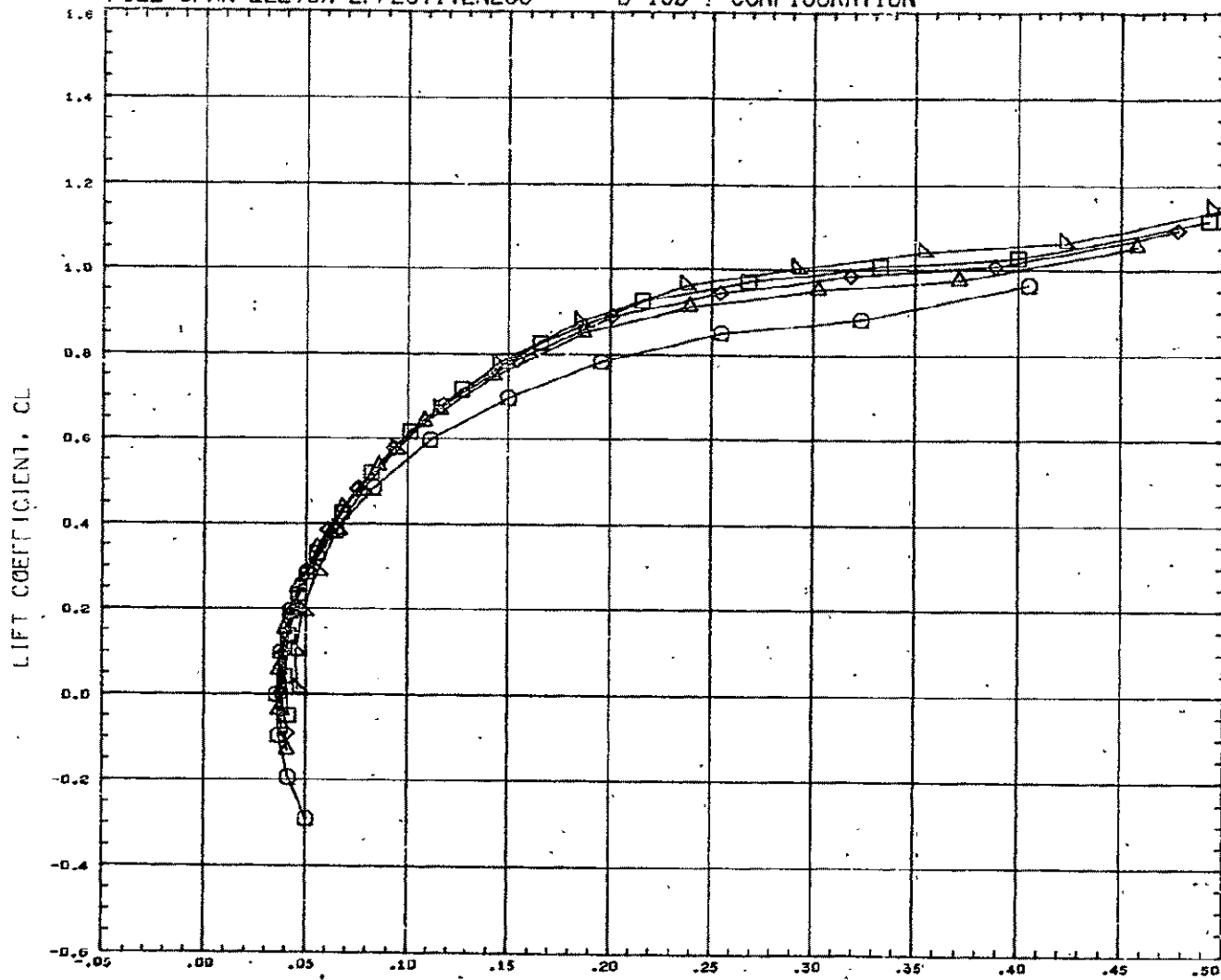
FULL SPAN ELEVON EFFECTIVENESS B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
1ACV021	GDLST 587-1 B21X1C4V7W16	0	-10	-10.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
1ACV022	GDLST 587-1 B21X1C4V7W16	0	0	0.000	0.000	0.000	0.000	LREF 15.2154 IN.
1ACV023	GDLST 587-1 B21X1C4V7W16	0	3	3.000	0.000	0.000	0.000	BREF 30.4400 IN.
1ACV024	GDLST 587-1 B21X1C4V7W16	0	6	6.000	0.000	0.000	0.000	XNRP 33.4360 IN.
1ACV025	GDLST 587-1 B21X1C4V7W16	0	10	10.000	0.000	0.000	0.000	YNRP 0.0000 IN.
								ZNRP 3.9380 IN.
								SCALE 0.0175

BETA 0.000

FULL SPAN ELEVON EFFECTIVENESS B-15B-1 CONFIGURATION

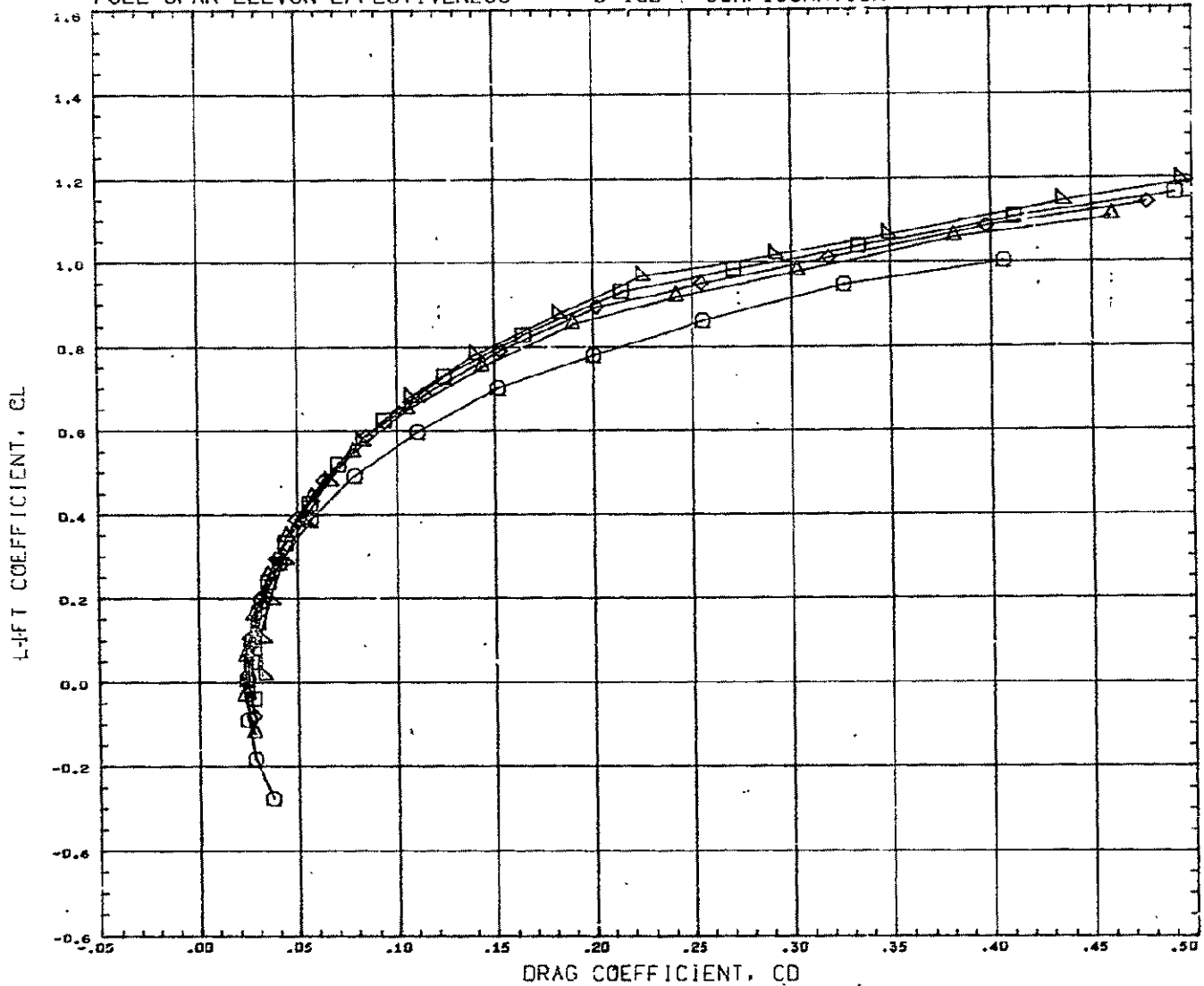


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
ACV021	GDLST 587-1 B21X1C4V7W16	0	-10	-10.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
ACV022	GDLST 587-1 B21X1C47W16	0	0	0.000	0.000	0.000	0.000	LREF 15.2152 IN.
ACV023	GDLST 587-1 B21X1C4V7W16	0	3	3.000	0.000	0.000	0.000	BREF 30.4400 IN.
ACV024	GDLST 587-1 B21X1C4V7W16	0	6	6.000	0.000	0.000	0.000	XMRP 33.4360 IN.
ACV025	GDLST 587-1 B21X1C4V7W16	0	10	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
								ZMRP 3.9380 IN.
								BLE 0.0175

BETA 5.000

FULL SPAN ELEVON EFFECTIVENESS

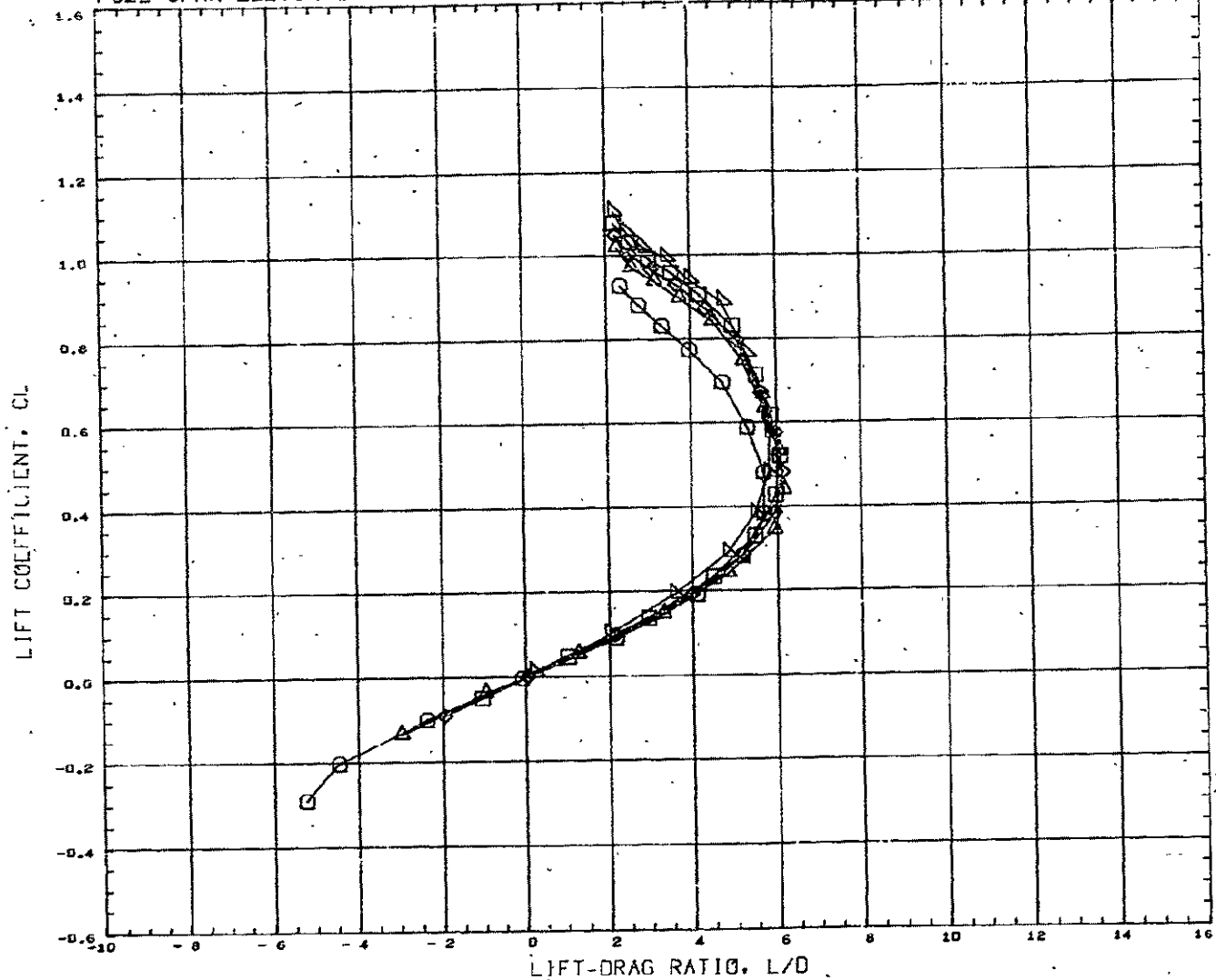
B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
ACV021	GDLST 587-1 B21X1C4V7W16	DC = 0 DE = -10	-10.000	0.000	0.000	SREF 380.3004 SQ. IN
ACV022	GDLST 587-1 B21X1C4V7W16	DC = 0 DE = 0	0.000	0.000	0.000	LREF 15.215 IN.
ACV023	GDLST 587-1 B21X1C4V7W16	DC = 0 DE = 3	3.000	0.000	0.000	BREF 30.4400 IN.
ACV024	GDLST 587-1 B21X1C4V7W16	DC = 0 DE = 6	6.000	0.000	0.000	XMRF 33.4360 IN.
ACV025	GDLST 587-1 B21X1C4V7W16	DC = 0 DE = 10	10.000	0.000	0.000	YMRF 0.0000 IN.
						ZMRF 5.9360 IN.
						SCALE 0.0175

BETA 10.000

FULL SPAN ELEVON EFFECTIVENESS B-15B-1 CONFIGURATION

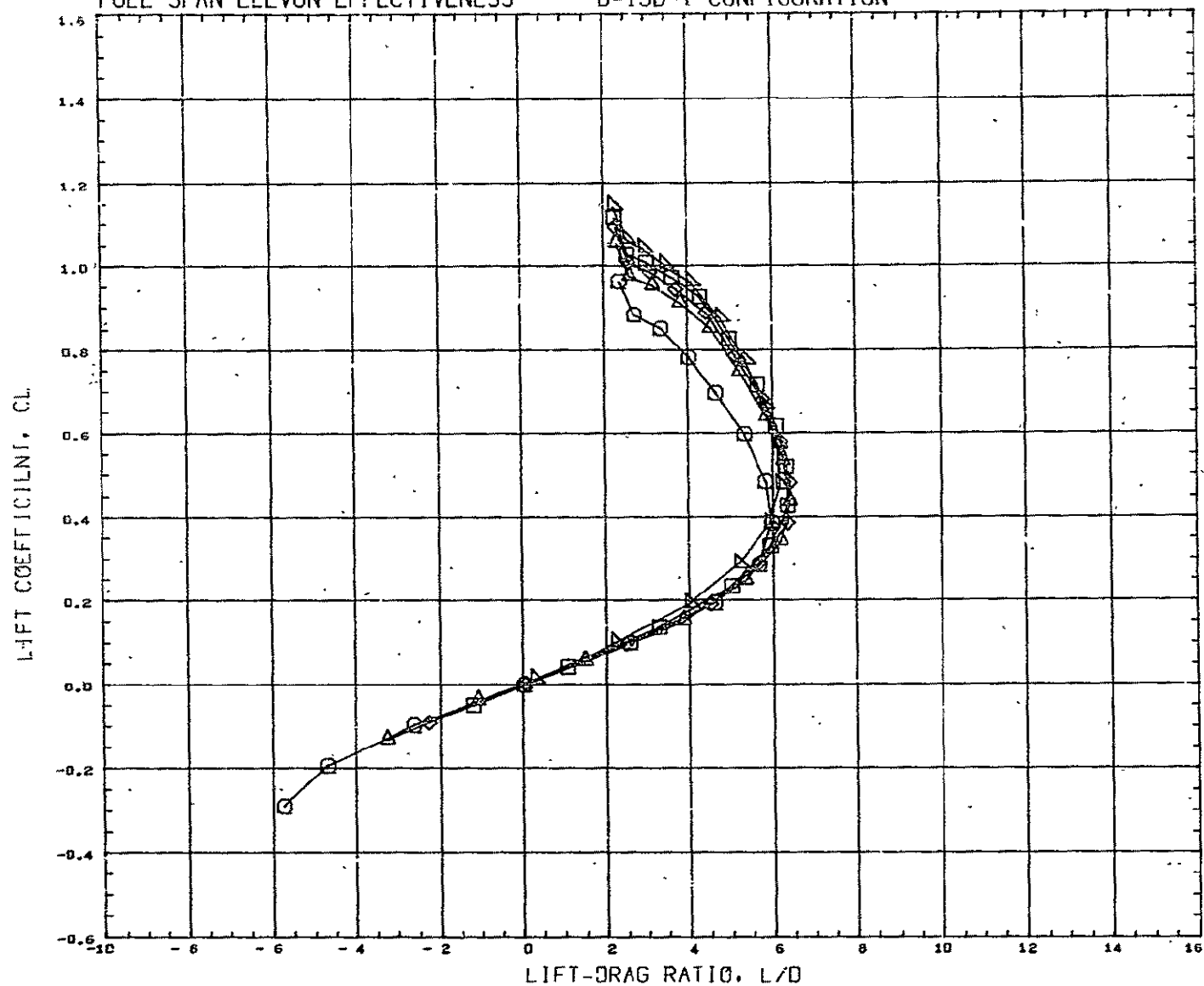


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
1ACV021	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = -10	-10.000	0.000	0.000	0.000	SREF	300.3004 SQ. IN.
1ACV022	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = -9	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
1ACV023	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = -3	3.000	0.000	0.000	0.000	BREF	30.4400 IN.
1ACV024	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 6	6.000	0.000	0.000	0.000	XMRP	33.4360 IN.
1ACV025	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 10	10.000	0.000	0.000	0.000	YMRP	0.0000 IN.
								ZMRP	3.9300 IN.
								SCALE	0.0175

WETA 0.000

FULL SPAN ELEVON EFFECTIVENESS

B-15B-1 CONFIGURATION

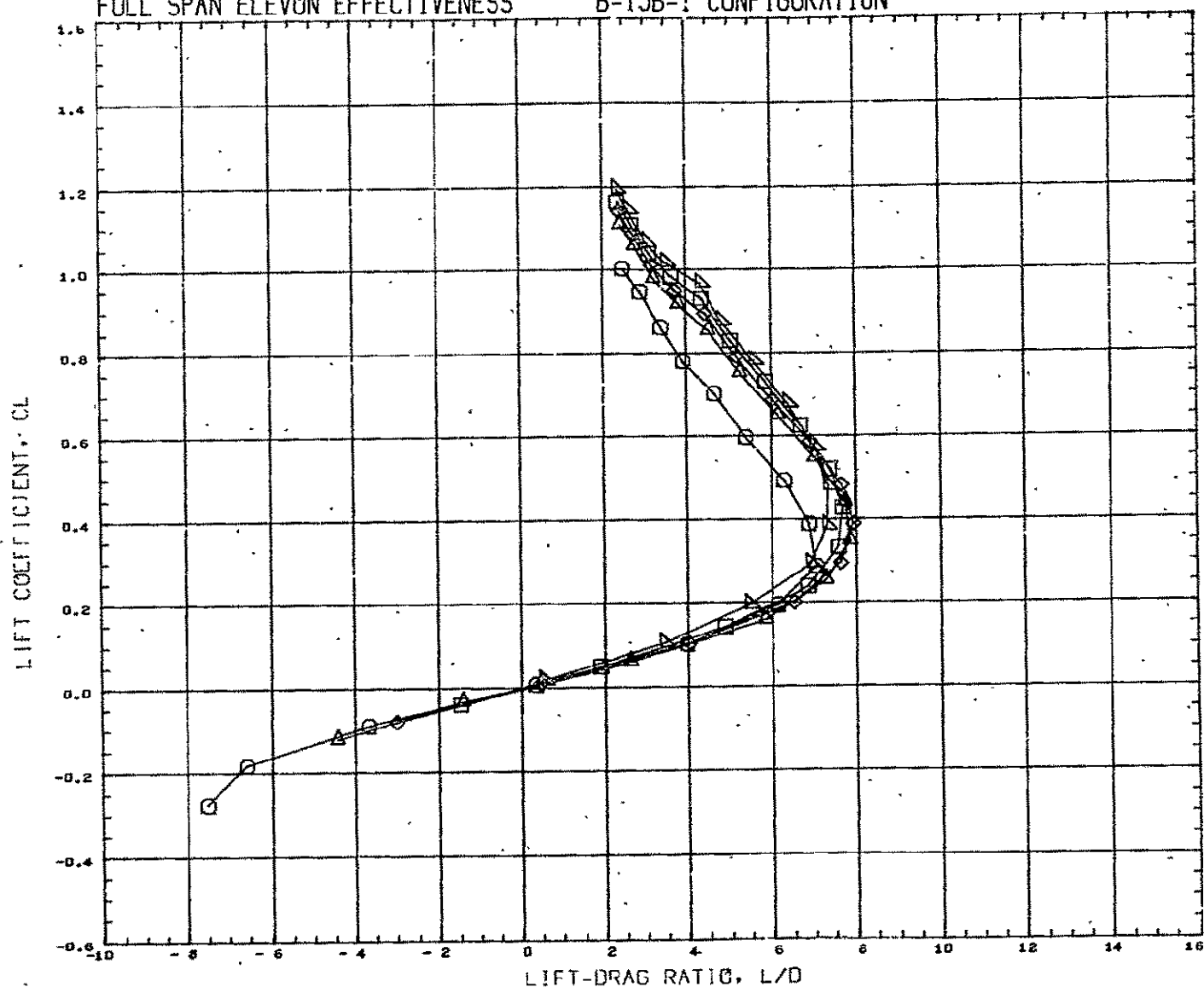


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANYTR	REFERENCE INFORMATION
(ACV021)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = -10	-10.000	0.000	0.000	0.000	SREF 380.3000 SQ. IN
(ACV022)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LREF 15.215% IN.
(ACV023)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 3	3.000	0.000	0.000	0.000	BREF 30.4400 IN.
(ACV024)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 6	6.000	0.000	0.000	0.000	XMRP 33.4360 IN.
(ACV025)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 10	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
								ZMRP 3.9380 IN.
								SCALE 0.0175

BETA 5.000

FULL SPAN ELEVON EFFECTIVENESS

B-15B-1 CONFIGURATION

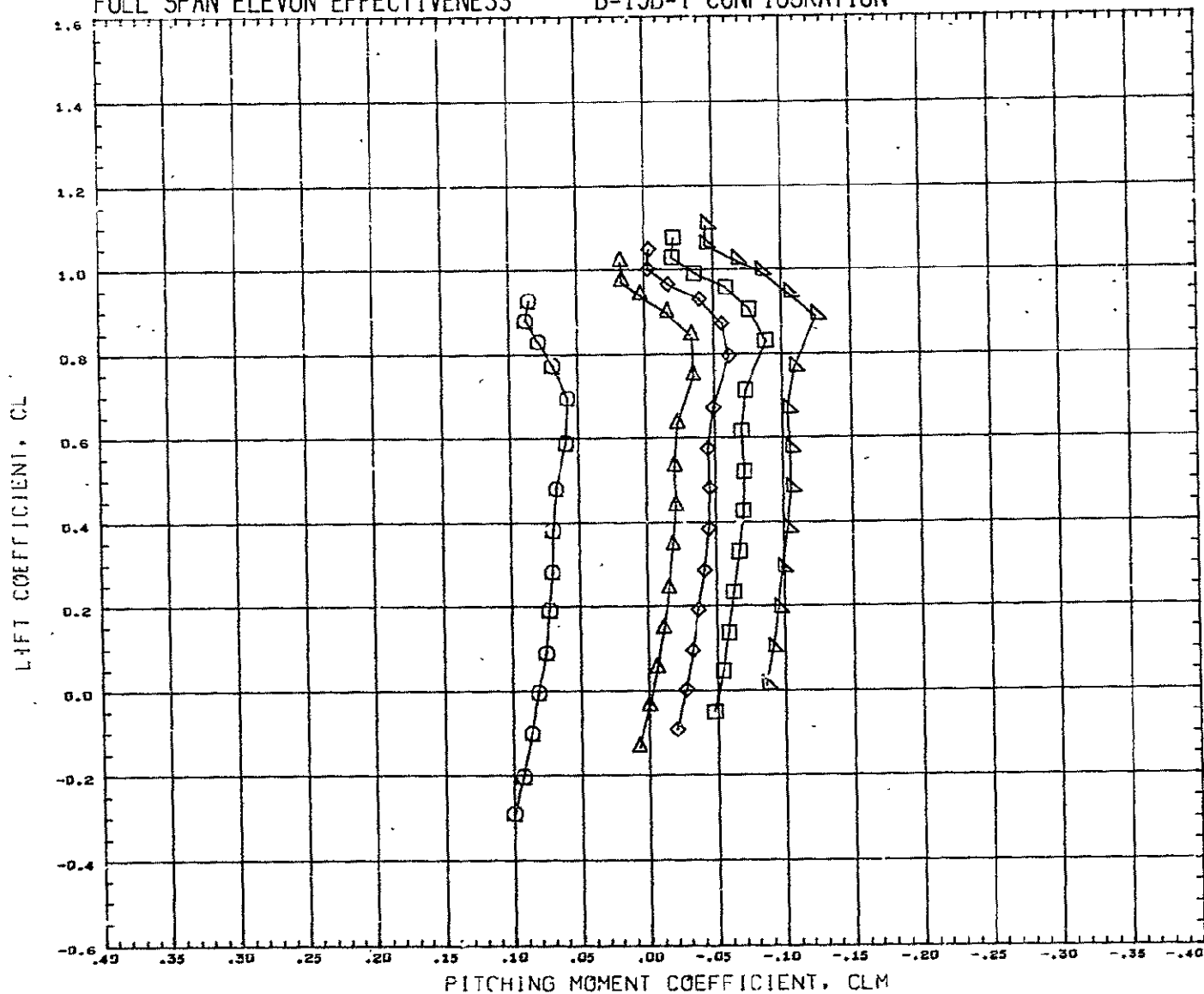


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
1ACV021	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = -10	-10.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
1ACV022	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LRFF	15.2154 IN.
1ACV023	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 3	3.000	0.000	0.000	0.000	BREF	30.4400 IN.
1ACV024	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 6	6.000	0.000	0.000	0.000	XMRP	33.4360 IN.
1ACV025	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 10	10.000	0.000	0.000	0.000	YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								E	0.0175

BETA 10.000

FULL SPAN ELEVON EFFECTIVENESS

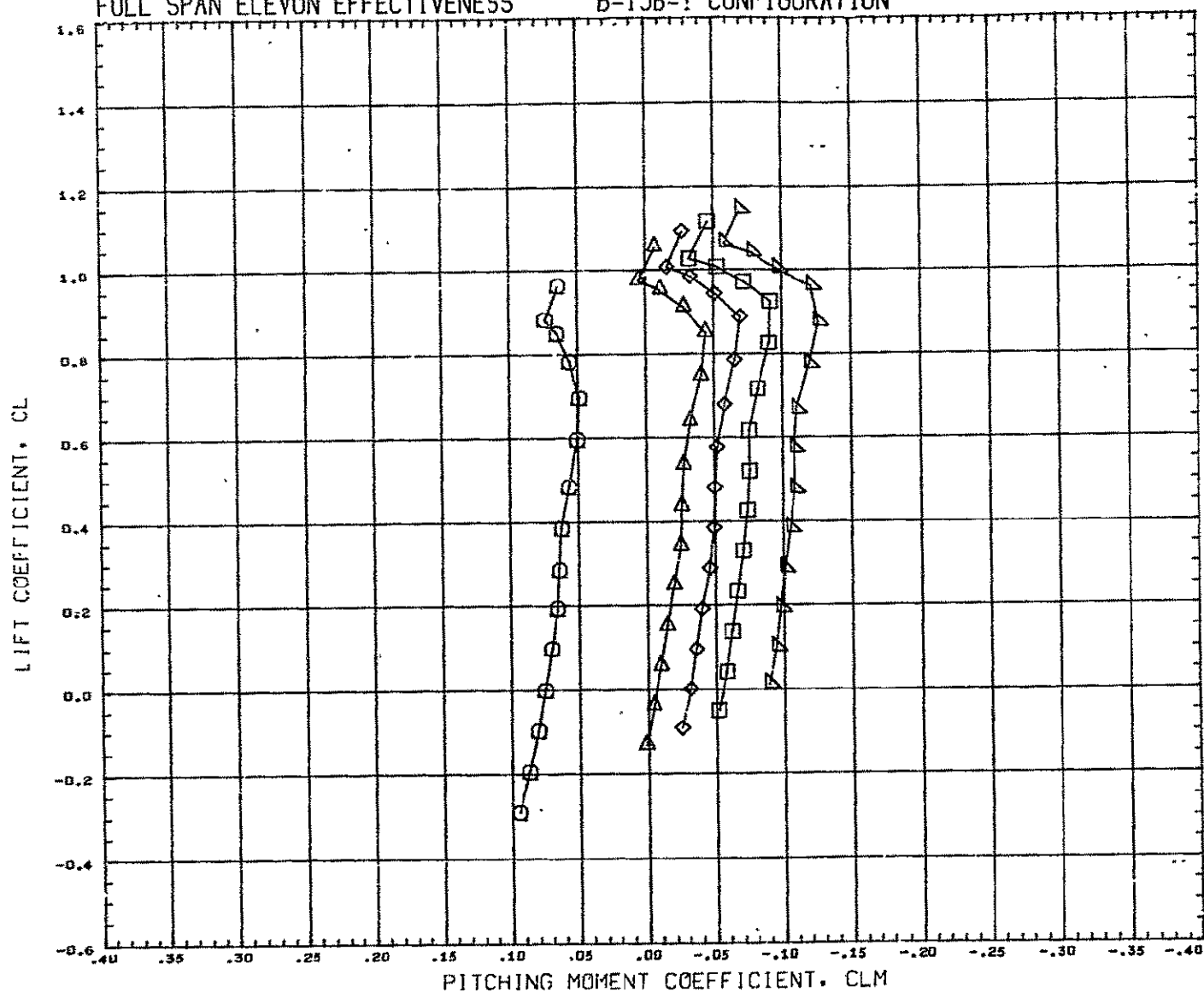
B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
ACVD21	GDLST 587-1 B21X1C4V7W16	0	-10	-10.000	0.000	0.000	0.000	SREF 380.300" SQ. IN
ACVD22	GDLST 587-1 B21X1C4V7W16	0	0	0.000	0.000	0.000	0.000	LREF 15.215" IN.
ACVD23	GDLST 587-1 B21X1C4V7W16	0	3	3.000	0.000	0.000	0.000	BREF 30.4400 IN.
ACVD24	GDLST 587-1 B21X1C4V7W16	0	6	6.000	0.000	0.000	0.000	XMRF 33.4360 IN.
ACVD25	GDLST 587-1 B21X1C4V7W16	0	10	10.000	0.000	0.000	0.000	YMRF 0.0000 IN.
								ZMRF 3.9360 IN.
								SCALE 0.0175
BETA	0.000							

FULL SPAN ELEVON EFFECTIVENESS

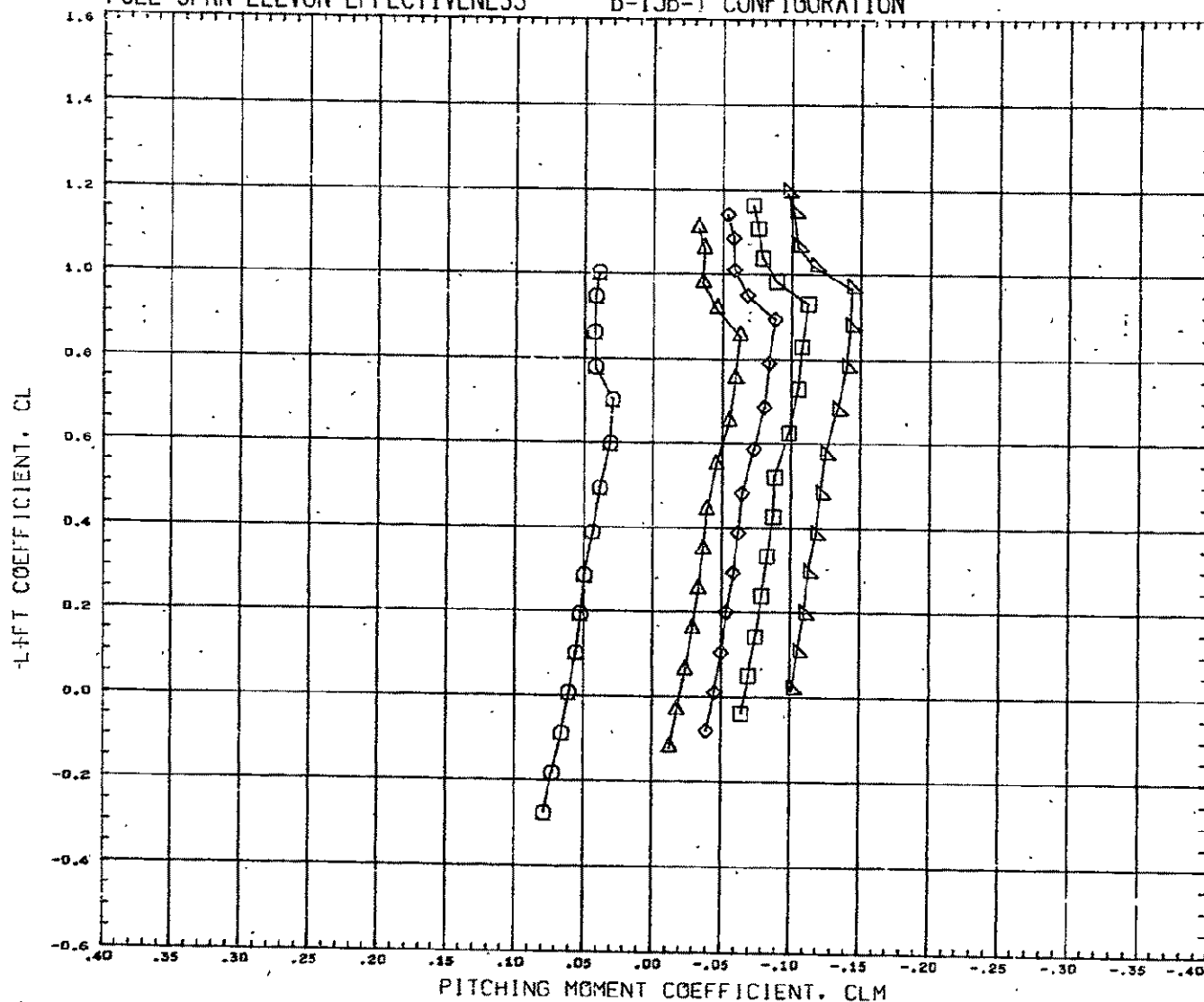
B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ACV021)	GDLST 587-1 B21X1C4V7W16	0	DE = -10	-10.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(ACV022)	GDLST 587-1 B21X1C4V7W16	0	DE = 0	0.000	0.000	0.000	0.000	LREF 15.2152 IN.
(ACV023)	GDLST 587-1 B21X1C4V7W16	0	DE = 3	3.000	0.000	0.000	0.000	BREF 30.4400 IN.
(ACV024)	GDLST 587-1 B21X1C4V7W16	0	DE = 6	6.000	0.000	0.000	0.000	XMRP 33.4360 IN.
(ACV025)	GDLST 587-1 B21X1C4V7W16	0	DE = 10	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
								ZMRP 3.9380 IN.
								SCALE 0.0175

BETA 5.000

FULL SPAN ELEVON EFFECTIVENESS B-15B-1 CONFIGURATION

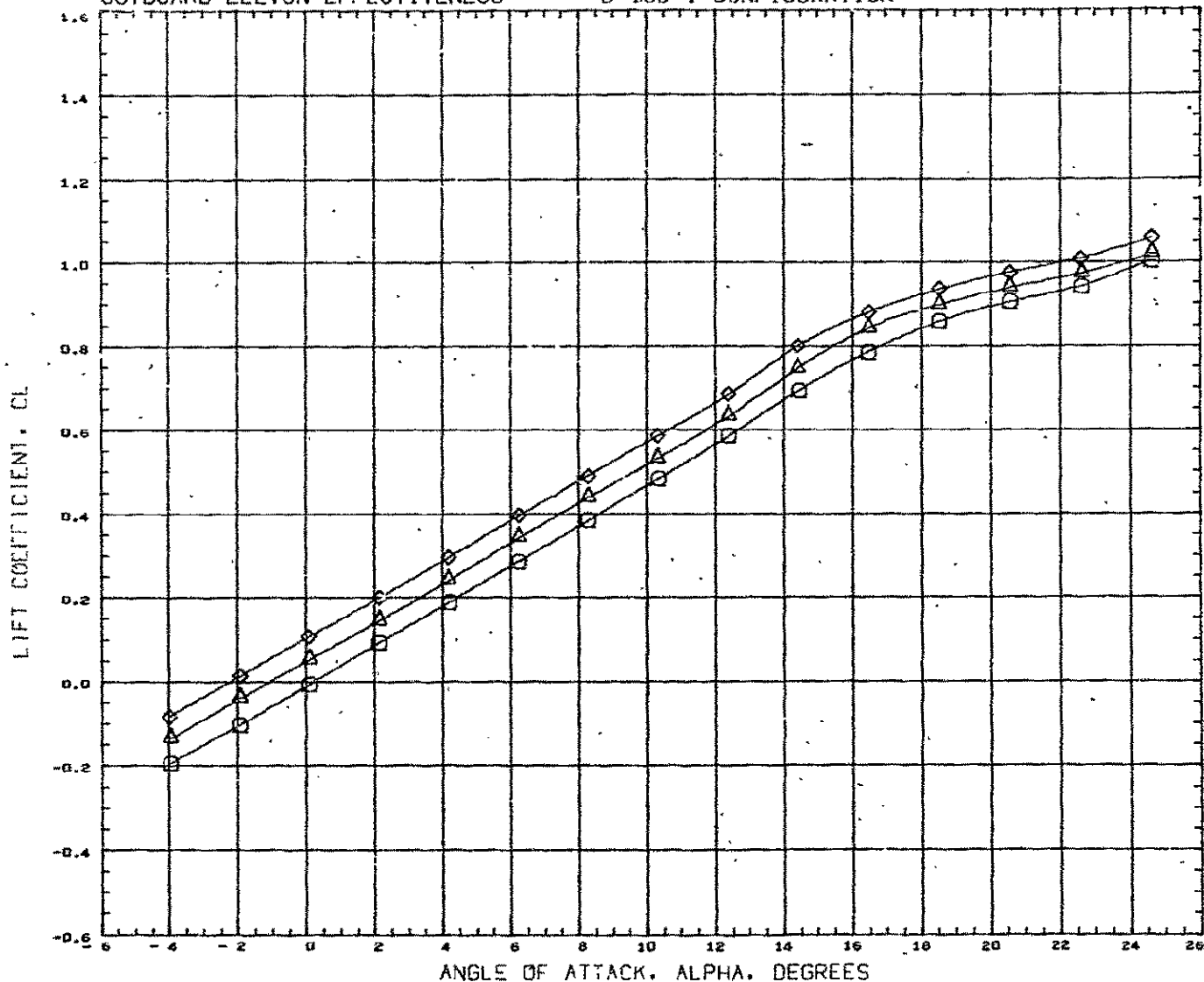


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
ACV021	GDLST 587-1	B21X1C4V7W16	DC = 0	DE = -10	-10.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
ACV022	GDLST 587-1	B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LREF 15.215 IN.
ACV023	GDLST 587-1	B21X1C4V7W16	DC = 0	DE = 3	3.000	0.000	0.000	0.000	BREF 30.4400 IN.
ACV024	GDLST 587-1	B21X1C4V7W16	DC = 0	DE = 6	6.000	0.000	0.000	0.000	XMRP 33.4360 IN.
ACV025	GDLST 587-1	B21X1C4V7W16	DC = 0	DE = 10	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
									ZMRP 3.9380 IN.
									SCALE 0.0175

BETA 10.000

OUTBOARD ELEVON EFFECTIVENESS

B-15B-1 CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (ACVD42) GDLST 587-1 B21X1C4V7W16
 (ECV022) GDLST 587-1 B21X1C4.7W16
 (ACVD41) GDLST 587-1 B21X1C4V7W16

DE = -5 DA = 0
 DE = 0 DA = 0
 DE = 5 DA = 0

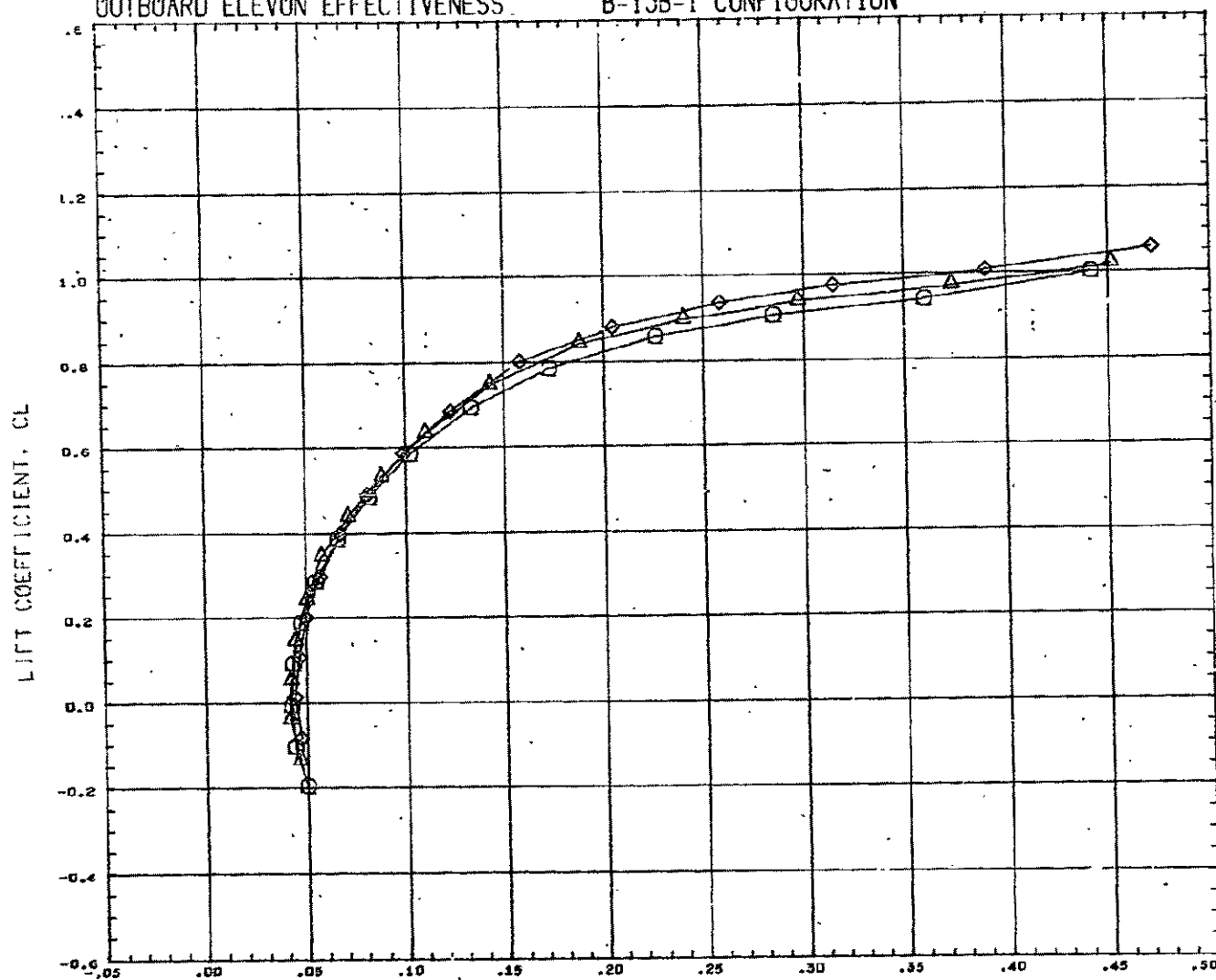
BETA ELEVTR DELO DEFO
 0.000 -5.000 -10.000 -10.000
 0.000 0.000 0.000 0.000
 0.000 5.000 10.000 10.000

REFERENCE INFORMATION
 SREF 300.3004 SQ. IN.
 LREF 15.215 IN.
 BREF 30.4400 IN.
 XHRF 33.4360 IN.
 YHRF 0.0600 IN.
 ZHRF 3.9380 IN.
 SCALE 0.0175

MACH 0.201

OUTBOARD ELEVON EFFECTIVENESS

B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
ACV042, (C)	GDLST 587-1 B21A1C4V7W16
ECV022, (X)	GDLST 587-1 B21A1C4V7W16
ACV041, (D)	GDLST 587-1 B21A1C4V7W16

DE	DA
DE = -5	DA = 0
DC = 0	DE = 0
DE = 5	DA = 0

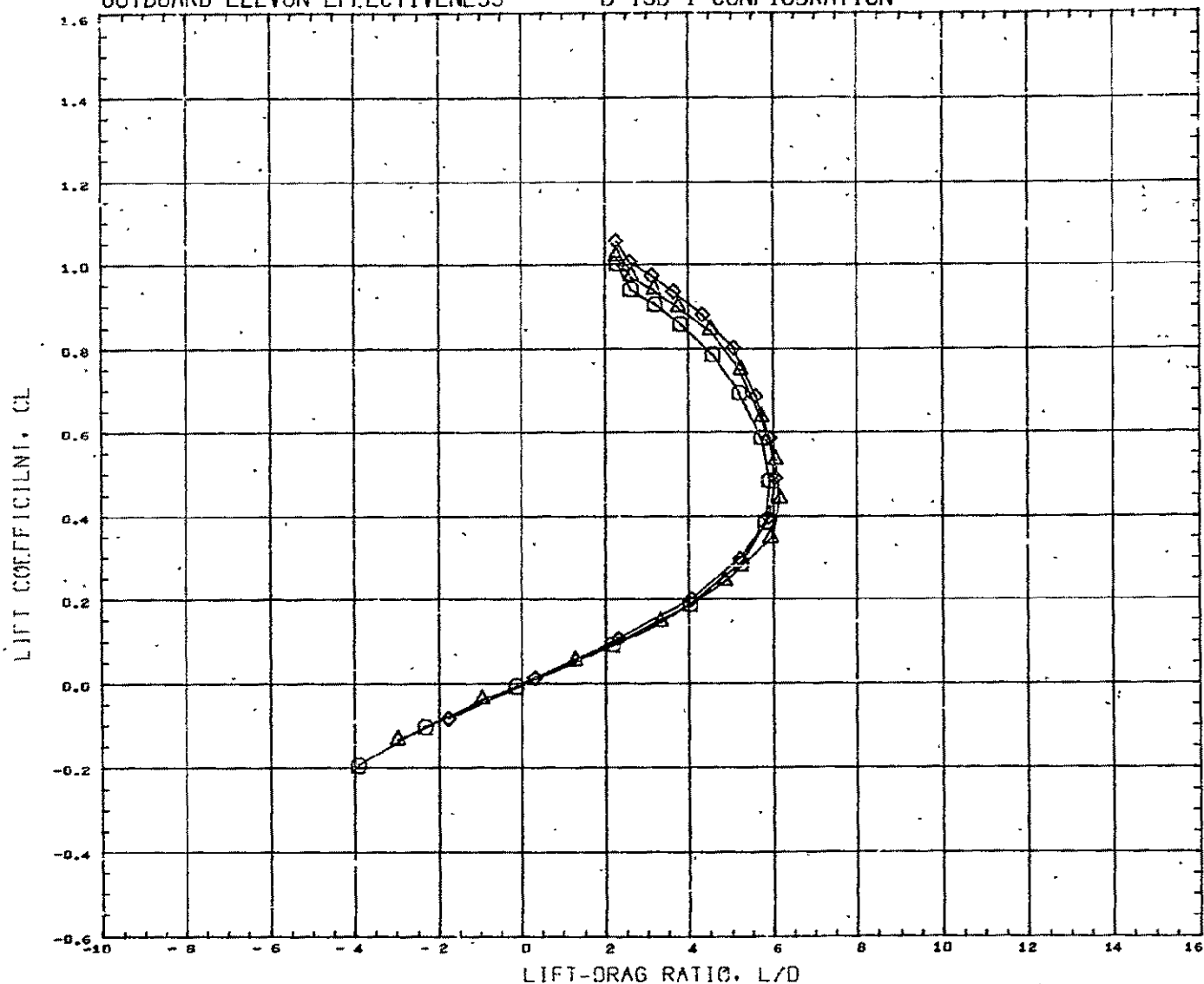
BETA	ELEVTS	DELO	DERO
0.000	-5.000	-10.000	-10.000
0.000	0.000	0.000	0.000
0.000	5.000	10.000	10.000

REFERENCE INFORMATION	
SREF	300,3004 SQ. IN
LREF	15,2150 IN.
BREF	30,4400 IN.
XMRP	33,4360 IN.
YMRP	0.0000 IN.
ZMRP	5.9380 IN.
SCALE	0.0175

MACH 0.201

OUTBOARD ELEVON EFFECTIVENESS

B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ACV042)	DDLST 587-1 B21X1C4V7W16
(ECV022)	DDLST 587-1 B21X1C4V7W16
(ACV041)	DDLST 587-1 B21X1C4V7W16

DE	DA
-5	0
0	0
5	0

BETA
0.000
0.000
0.000

ELEVTR
-5.000
0.000
5.000

DELO
-10.000
0.000
10.000

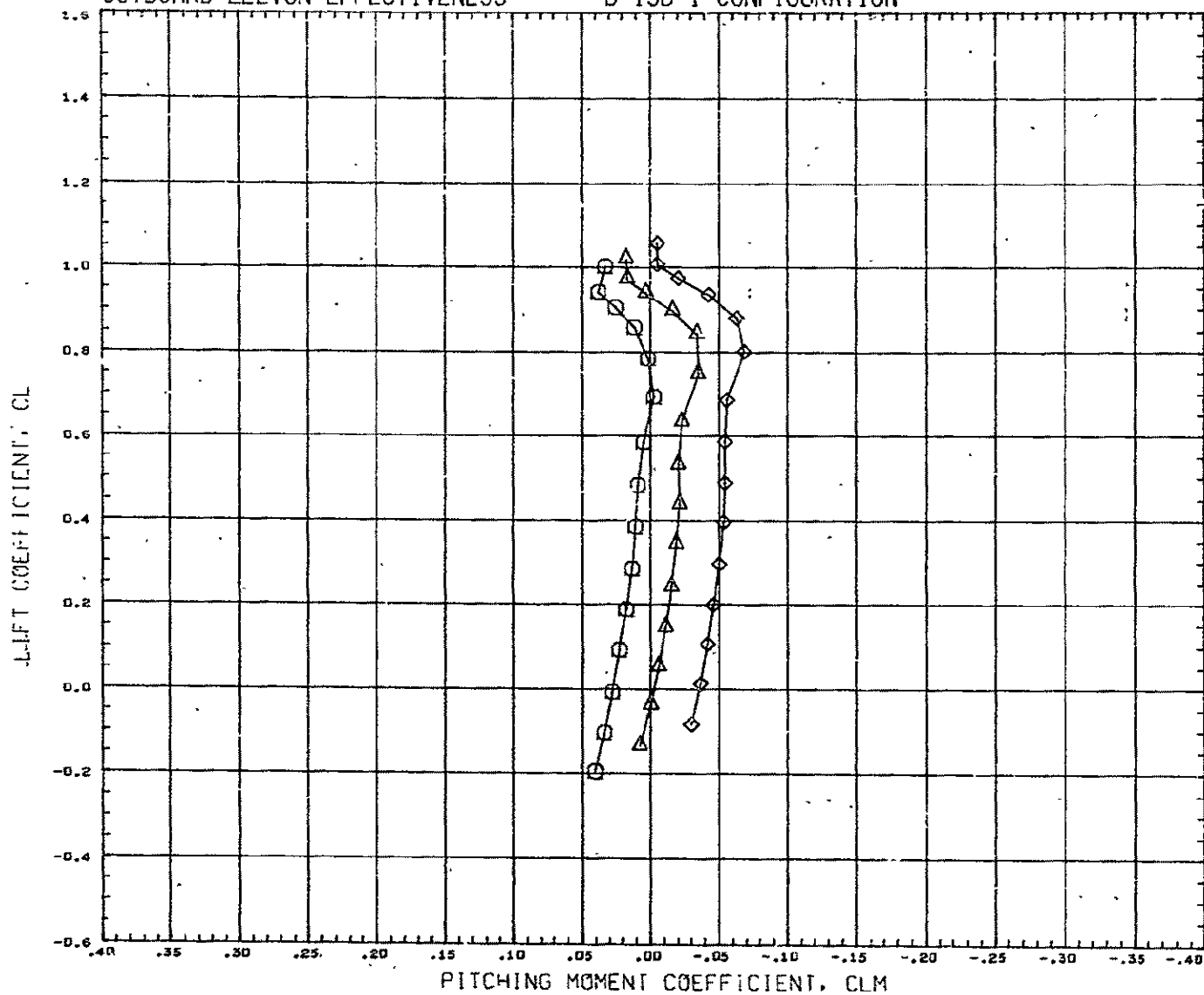
DERO
-10.000
0.000
10.000

REFERENCE INFORMATION
SREF 380.3004 SQ. IN
LREF 15.215 IN.
BREF 30.4400 IN.
XMRP 33.4360 IN.
YMRP 0.0000 IN.
ZMRP 3.9380 IN.
SCALE 0.0175

MACH 0.201

OUTBOARD ELEVON EFFECTIVENESS

B-15B-1 CONFIGURATION



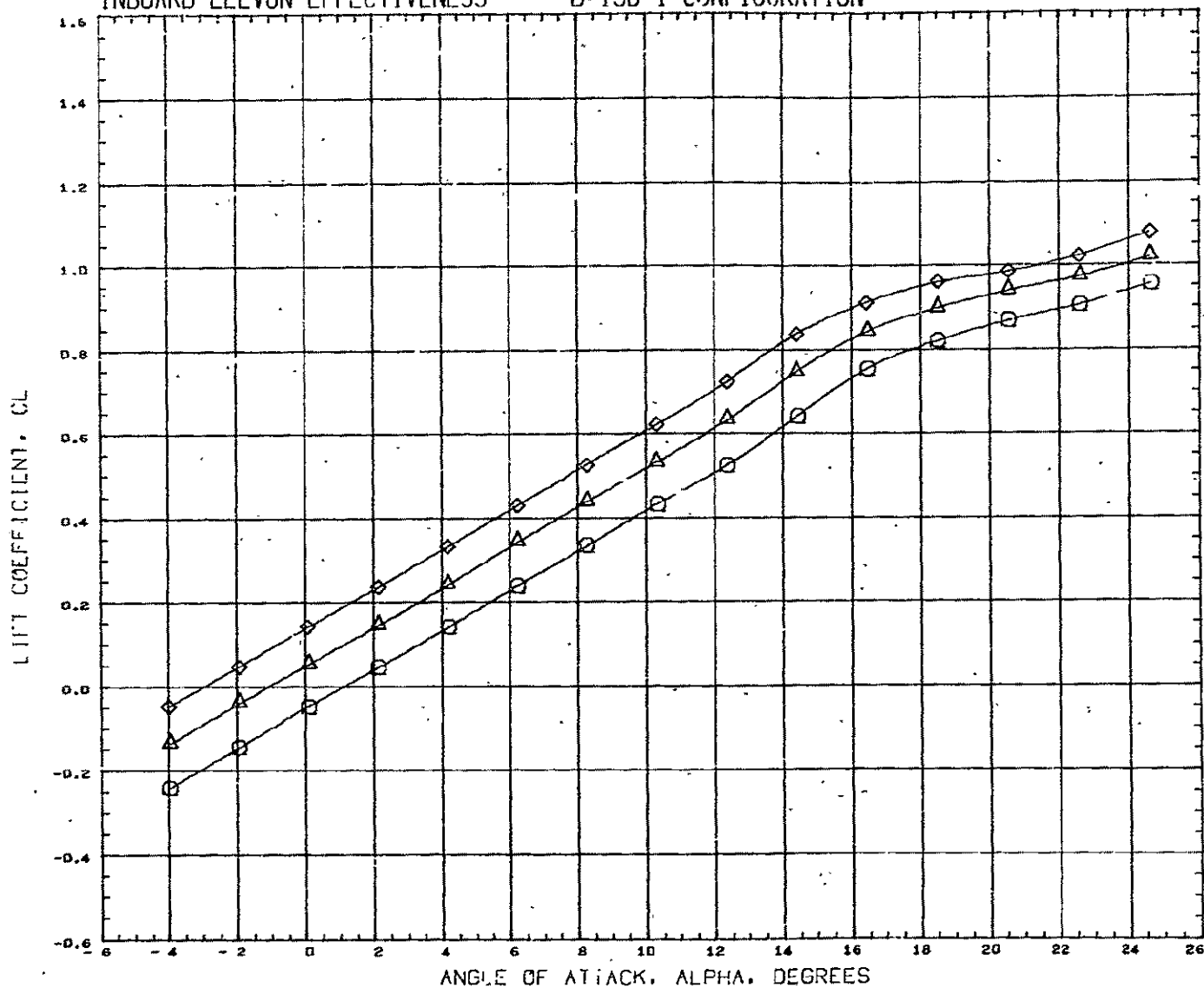
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (ACV062, GDLST 587-1 B21X1C4V7W16
 (ECV022, GDLST 587-1 B21X1C4V7W16
 (ACV041, GDLST 587-1 B21X1C4V7W16

DE = -5 DA = 0 BETA 0.000 ELEVTR -5.000 DELO -10.000 DERO -10.000
 DC = 0 DE = 0 0.000 0.000 0.000 0.000
 DE = 5 DA = 0 0.000 5.000 10.000 10.000

REFERENCE INFORMATION
 SREF 380.3004 SQ. IN
 LREF 15.215C IN.
 BREF 30.4400 IN.
 XMRP 33.4560 IN.
 YMRP 0.0000 IN.
 ZMRP 3.9380 IN.
 SCALE 0.0175

MACH 0.201

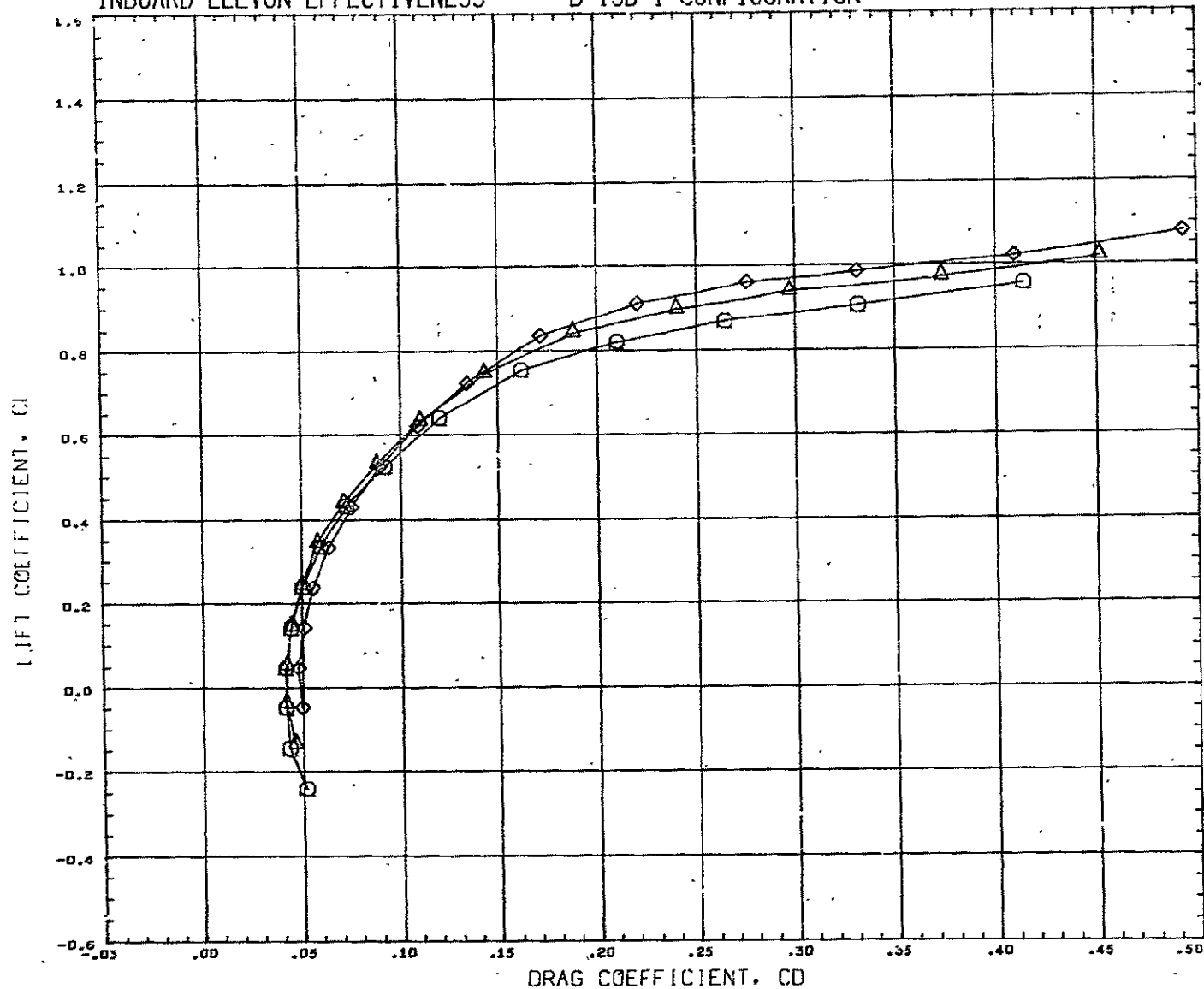
INBOARD ELEVON EFFECTIVENESS B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DA	BETA	ELEVTR	DELI	DERI	REFERENCE INFORMATION	
(ACV043)	GDLST 587-1 B21X1C4V7W16	DE = -5	DA = 0	0.000	-5.000	-10.000	-10.000	SREF	380.3004 SQ. IN
(ECV022)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LREF	15.2156 IN.
(ACV044)	GDLST 587-1 B21X1C4V7W16	DE = 5	DA = 0	0.000	5.000	10.000	10.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

MACH 0.201

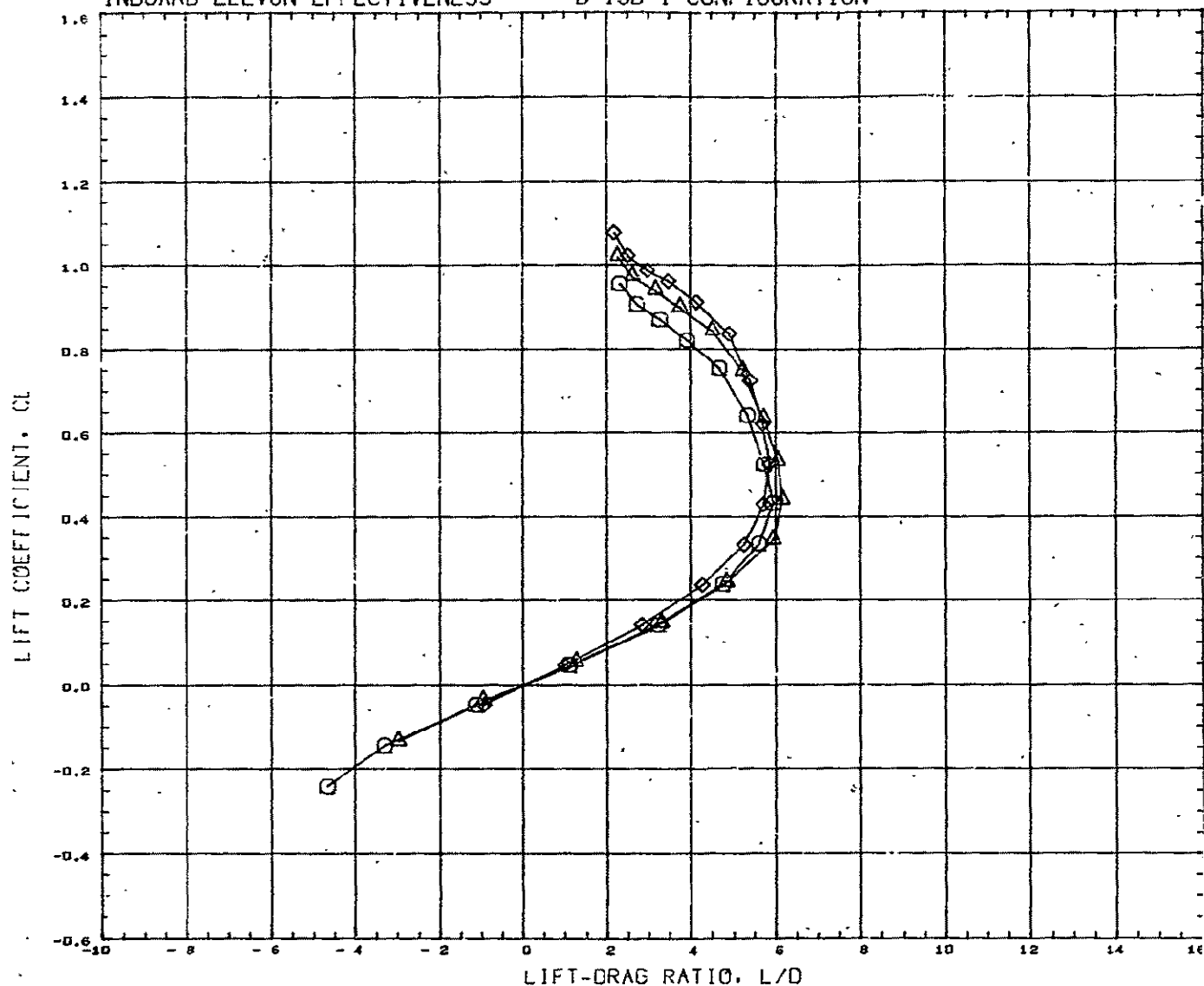
INBOARD ELEVON EFFECTIVENESS B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	DELI	DERI	REFERENCE INFORMATION	
ACV043	GDLST 587-1 B21X1C4V7W16 DE = -5 DA = 0	0.000	-5.000	-10.000	-10.000	SREF	380.3004 SQ. IN.
ECV022	GDLST 587-1 B21X1C4V7W16 DC = 0 CE = 0	0.000	0.000	0.000	0.000	LREF	15.215 IN.
ACV044	GDLST 587-1 B21X1C4V7W16 CE = 5 DA = 0	0.000	5.000	10.000	10.000	BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

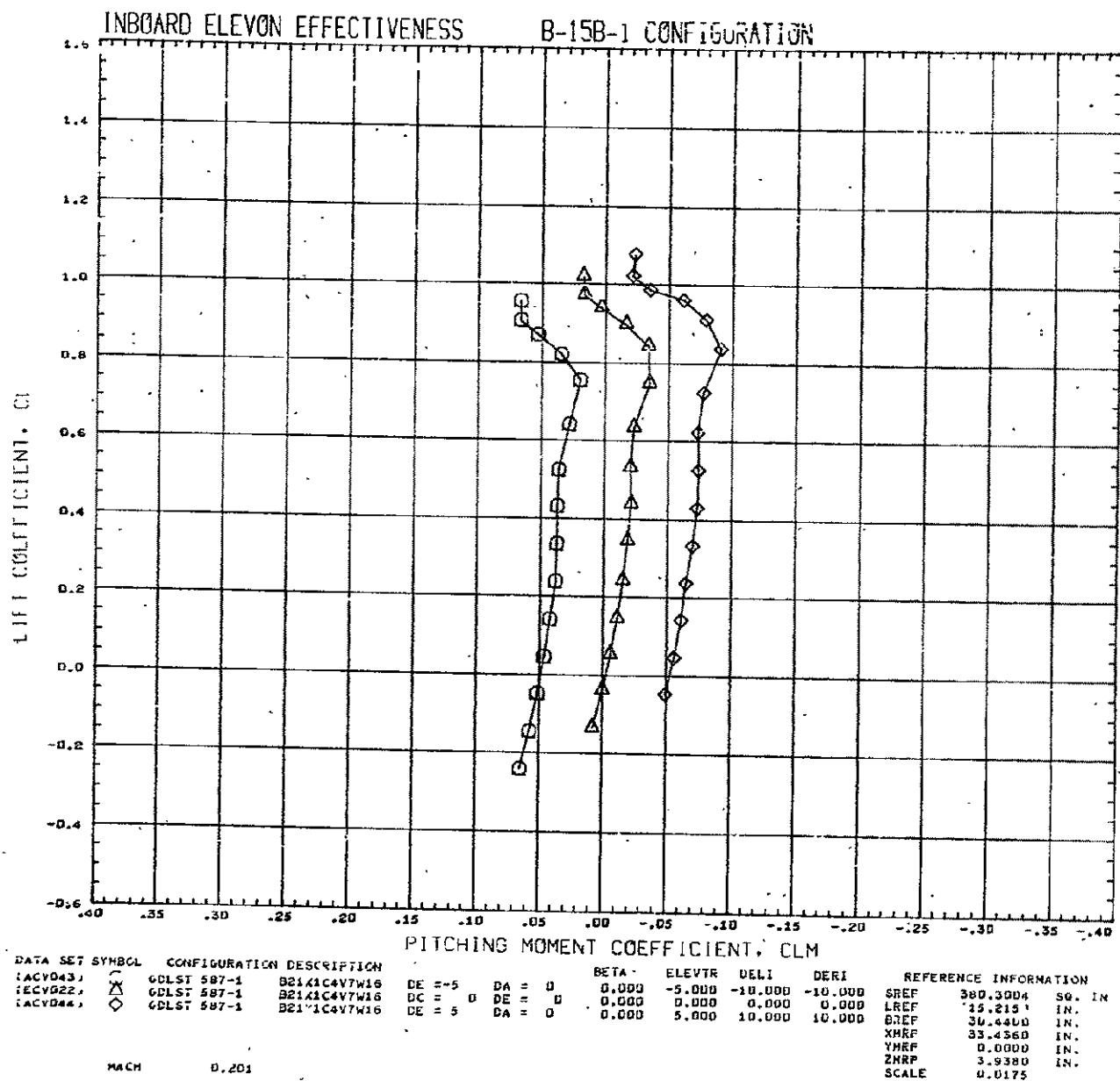
MACH 0.201

INBOARD ELEVON EFFECTIVENESS B-15B-1 CONFIGURATION

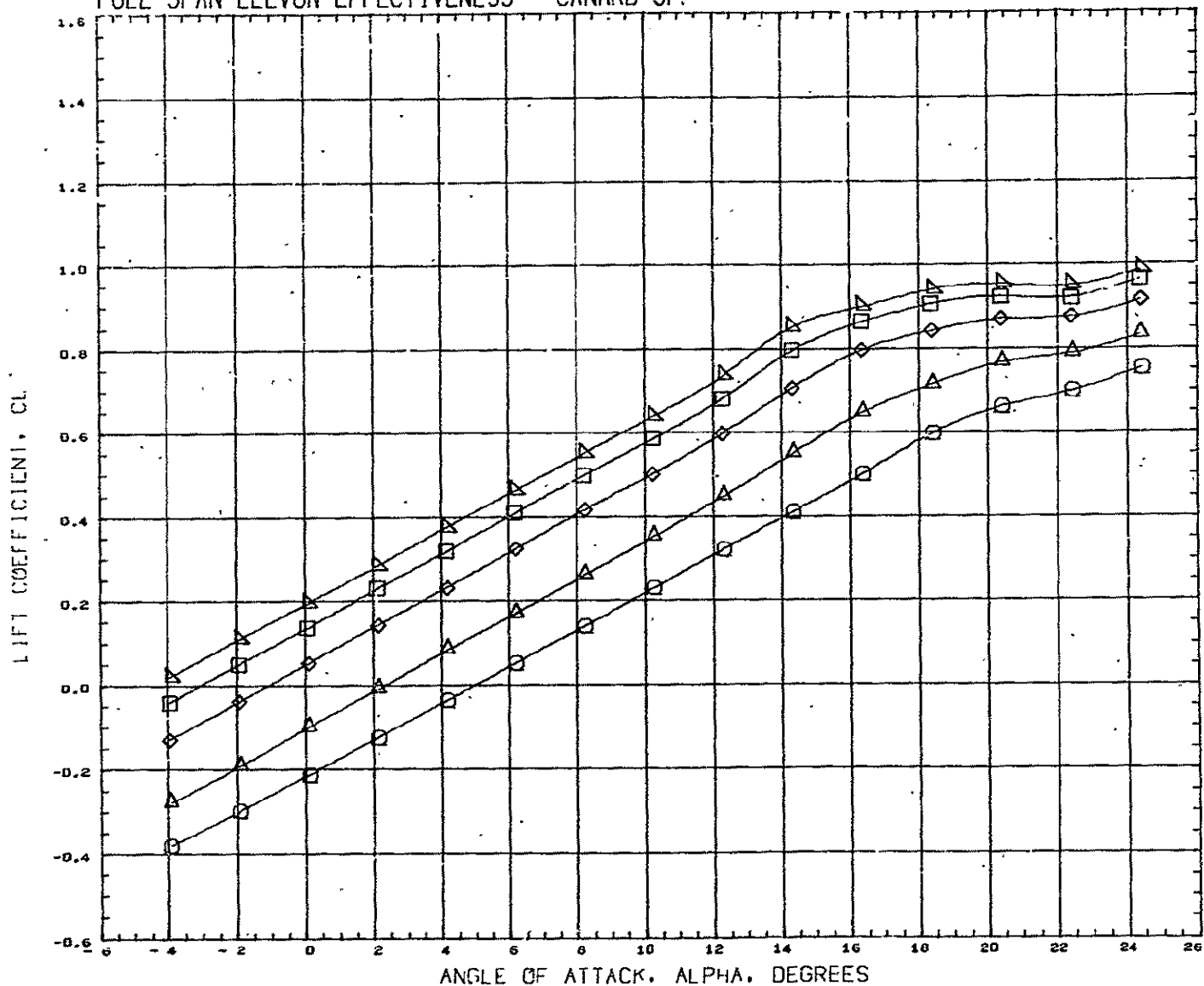


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CE	DA	BETA	ELEVTR	DELI	DERI	REFERENCE INFORMATION	
(ACY043)	GDLST 587-1 B21X1C*V7W16	CE = -5	DA = 0	0.000	-5.000	-10.000	-10.000	SREF	380.3004 SQ. IN
(ECV022)	GDLST 587-1 B21X1C*V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ACY044)	GDLST 587-1 B21X1C*V7W16	DE = 5	DA = 0	0.000	5.000	10.000	10.000	BREF	30.4400 IN.
								XMRP	33.4000 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

MACH 0.201



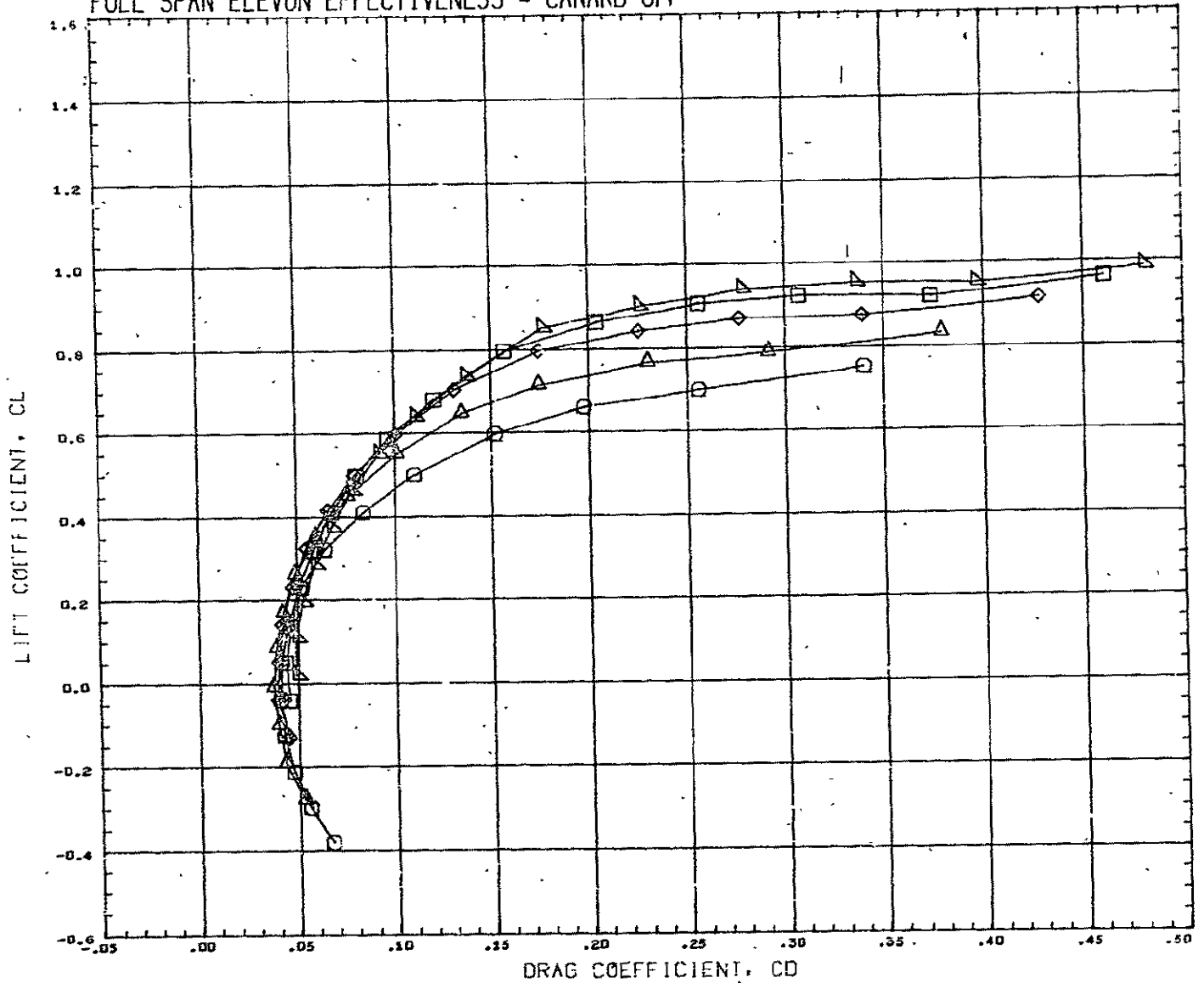
FULL SPAN ELEVON EFFECTIVENESS - CANARD OFF



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
ACV052	\square	GDLST 587-1 B21X1V7W16 DE = -20	0.000	-20.000	0.000	0.000	SREF 380.300 SQ. IN
ACV055	\diamond	GDLST 587-1 B21X1V7W16 DE = -10	0.000	-10.000	0.000	0.000	LREF 15.215 IN.
ACV056	\triangle	GDLST 587-1 B21X1V7W16 DE = 0	0.000	0.000	0.000	0.000	BREF 30.4400 IN.
ACV054	\circ	GDLST 587-1 B21X1V7W16 DE = 6	0.000	6.000	0.000	0.000	XMRP 33.4360 IN.
ACV053	\times	GDLST 587-1 B21X1V7W16 DE = 10	0.000	10.000	0.000	0.000	YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.0175

MACH 0.201

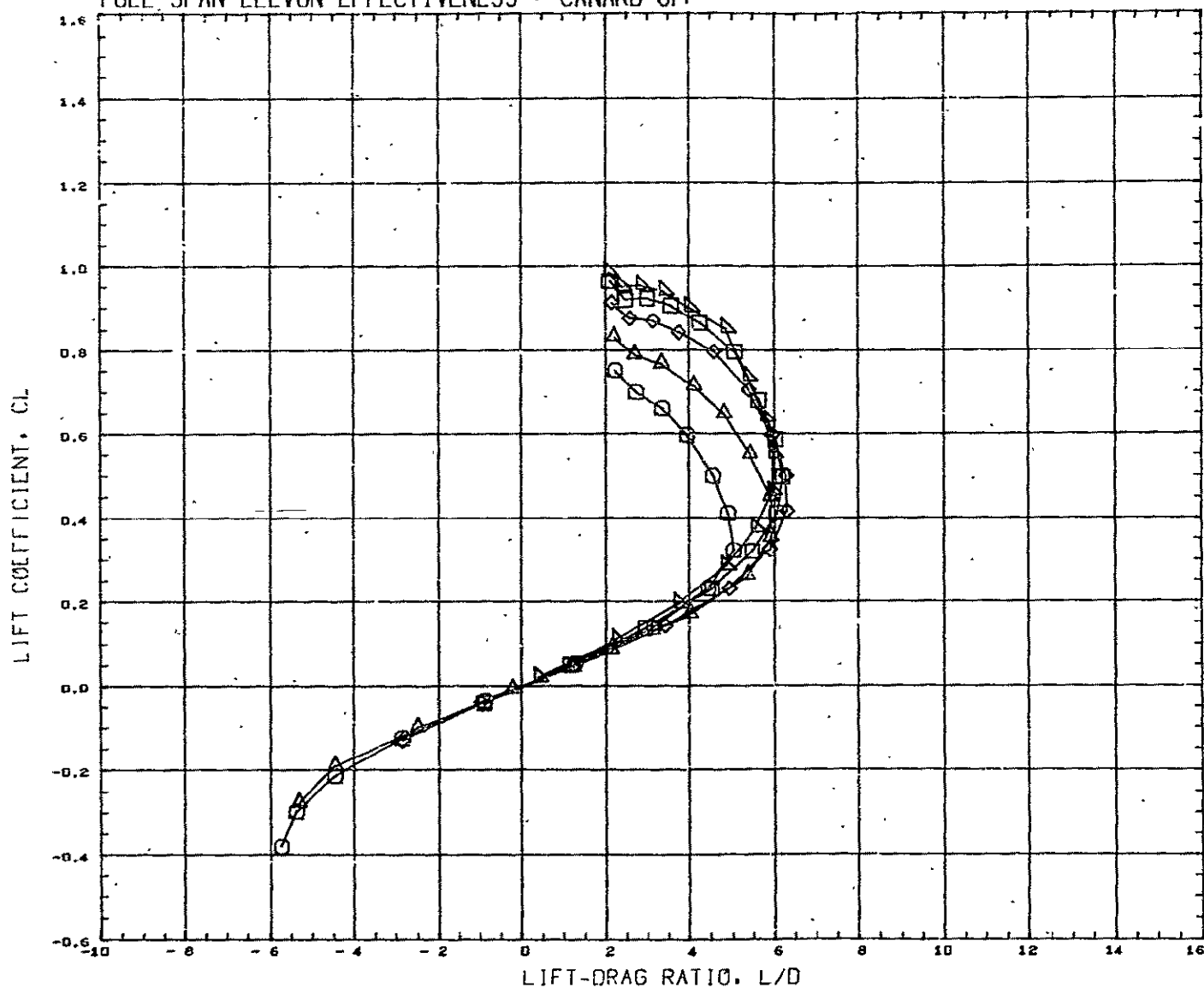
FULL SPAN ELEVON EFFECTIVENESS - CANARD OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
(ACV052)	GDLST 587-1 821X1V7W16 DE = -20	0.000	-20.000	0.000	0.000	SREF 380.3000 SQ. IN
(ACV055)	GDLST 587-1 821X1V7W16 DE = -10	0.000	-10.000	0.000	0.000	LREF 15.2150 IN.
(ACV056)	GDLST 587-1 821X1V7W16 DE = 0	0.000	0.000	0.000	0.000	BREF 30.4400 IN.
(ACV054)	GDLST 587-1 821X1V7W16 DE = 6	0.000	6.000	0.000	0.000	XMRP 33.4360 IN.
(ACV053)	GDLST 587-1 821X1V7W16 DE = 10	0.000	10.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH . 0.201

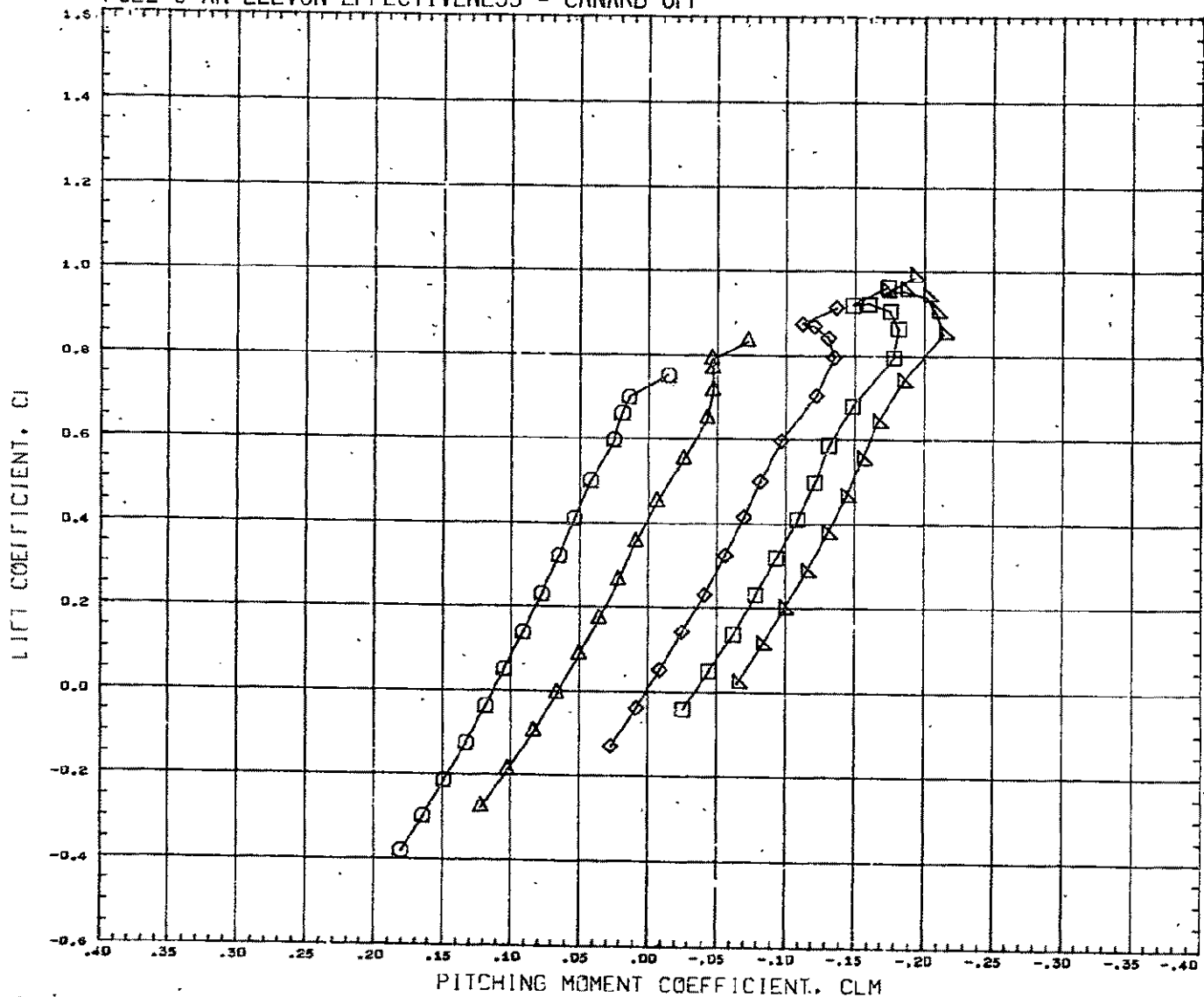
FULL SPAN ELEVON EFFECTIVENESS - CANARD OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
ACVD52	GDLST 587-1 821X1V7W16 DE = -20	0.000	-20.000	0.000	0.000	SREF 380.3004 SQ. IN.
ACVD53	GDLST 587-1 821X1V7W16 DE = -10	0.000	-10.000	0.000	0.000	LREF 15.2150 IN.
ACVD56	GDLST 587-1 821X1V7W16 DE = 0	0.000	0.000	0.000	0.000	JREF 30.4400 IN.
ACVD54	GDLST 587-1 821X1V7W16 DE = 6	0.000	6.000	0.000	0.000	XNRF 33.4360 IN.
ACVD53	GDLST 587-1 821X1V7W16 DE = 10	0.000	10.000	0.000	0.000	YNRF 0.0000 IN.
						ZNRF 3.9380 IN.
						SCALE 0.0175

MACH 0.201

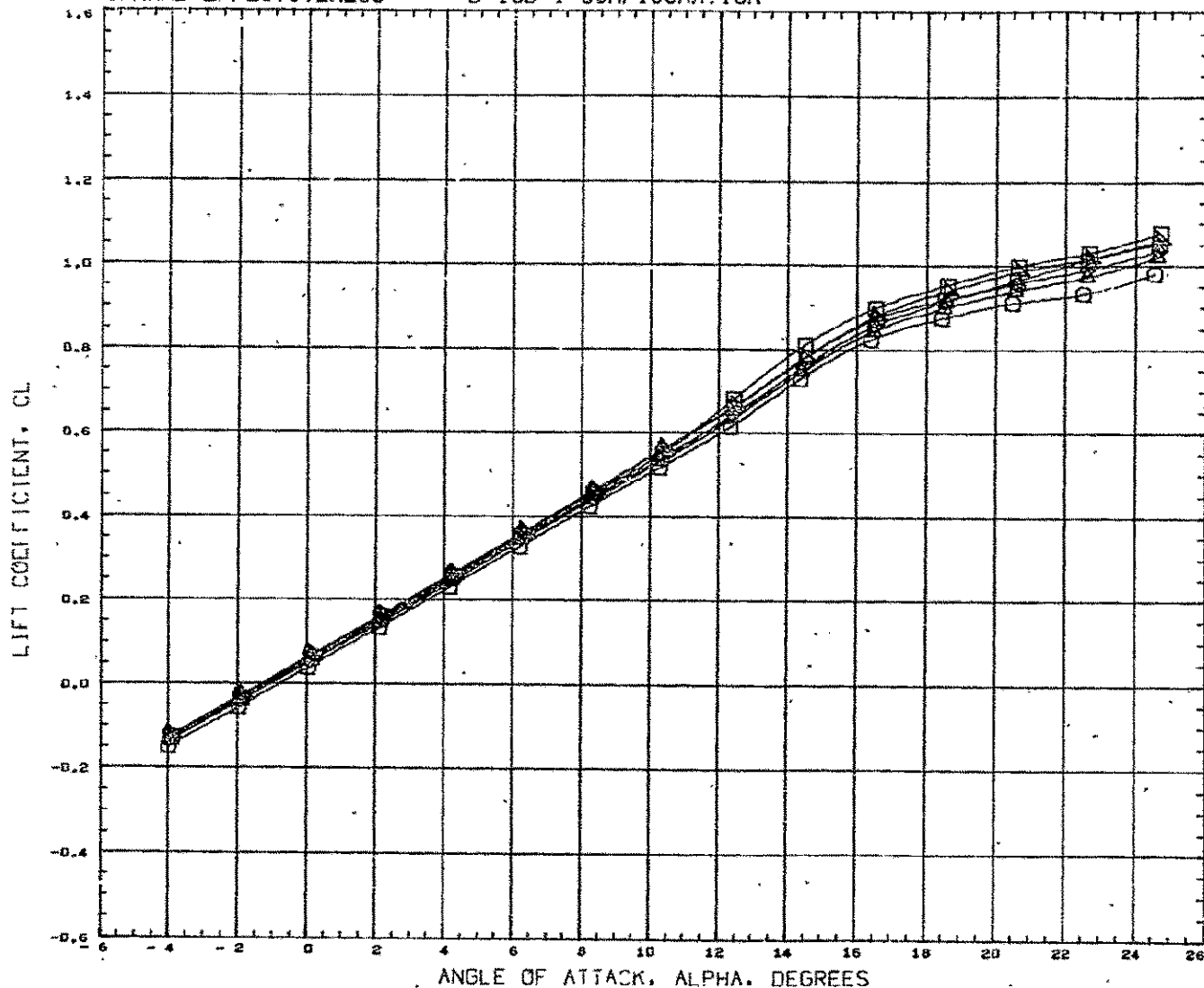
FULL SPAN ELEVON EFFECTIVENESS - CANARD OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
1ACV052	GDLST 587-1 B21X1V7W16 DE = -20	0.000	-20.000	0.000	0.000	SREF 380.3004 SQ. IN
1ACV055	GDLST 587-1 B21X1V7W16 DE = -10	0.000	-10.000	0.000	0.000	LREF 15.2150 IN.
1ACV056	GDLST 587-1 B21X1V7W16 DE = 0	0.000	0.000	0.000	0.000	BREF 30.4400 IN.
1ACV054	GDLST 587-1 B21X1V7W16 DE = 0	0.000	0.000	0.000	0.000	XMRF 33.4360 IN.
1ACV053	GDLST 587-1 B21X1V7W16 DE = 10	0.000	10.000	0.000	0.000	YMRF 0.0000 IN.
						ZMRF 3.9380 IN.
						SCALE 0.0175

MACH 0.201

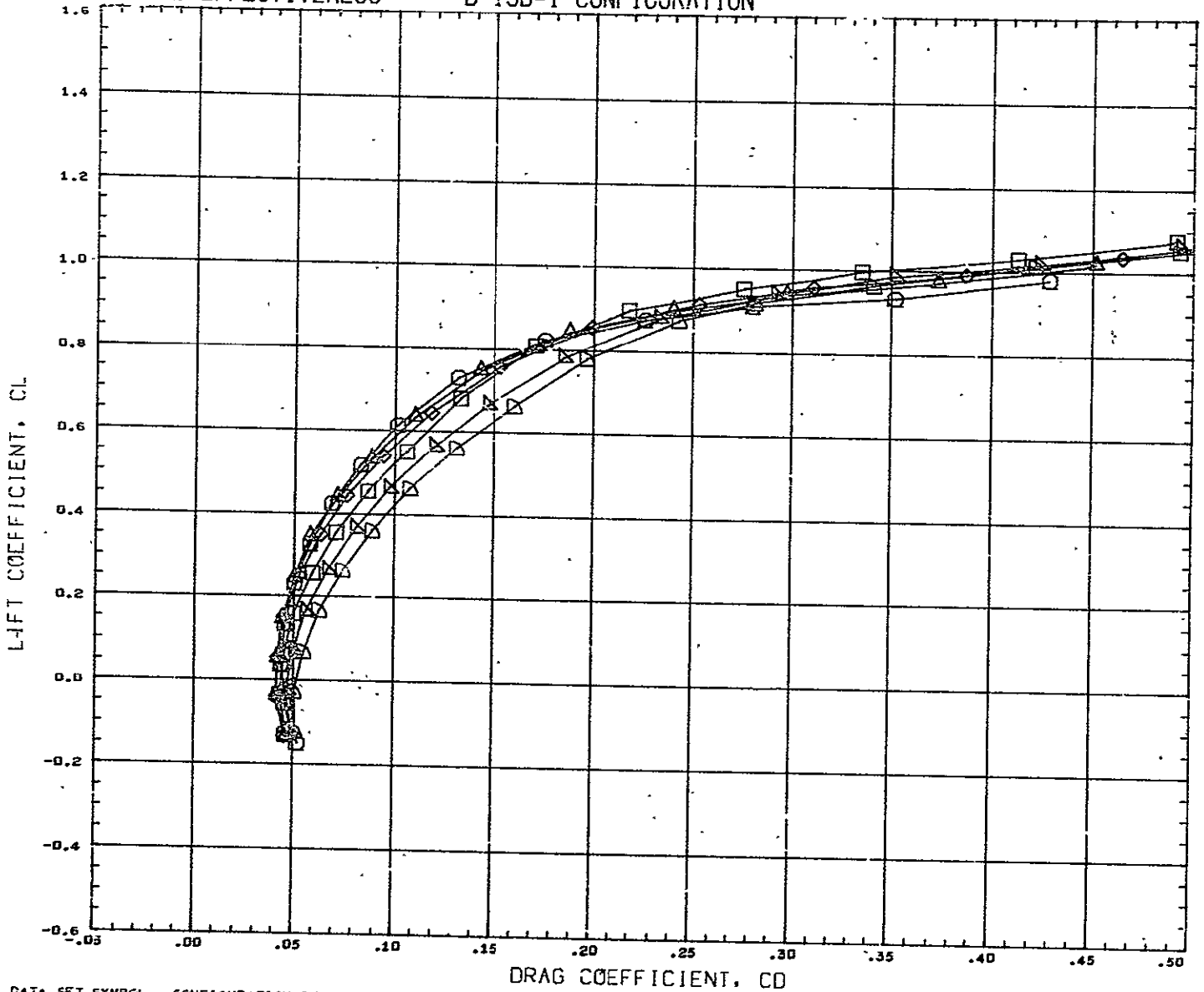
CANARD EFFECTIVENESS B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(BCV030)	GDLST 587-1 B21X1C4V7W16	DC = -10	DE = 0	0.000	0.000	0.000	-10.000	SREF 380.3004 SQ. IN.
(BCV032)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LREF 15.2155 IN.
(BCV036)	GDLST 587-1 B21X1C4V7W16	DC = 5	DE = 0	0.000	0.000	0.300	5.000	BREF 30.4400 IN.
(BCV027)	GDLST 587-1 B21X1C4V7W16	DC = 10	DE = 0	0.000	0.000	0.000	10.000	XMRP 33.4360 IN.
(BCV028)	GDLST 587-1 B21X1C4V7W16	DC = 15	DE = 0	0.000	0.000	0.000	15.000	YMRP 0.0000 IN.
(BCV029)	GDLST 587-1 B21X1C4V7W16	DC = 20	DE = 0	0.000	0.000	0.000	20.000	ZMRP 0.9380 IN.
BETA 0.000								SCALE 0.0175

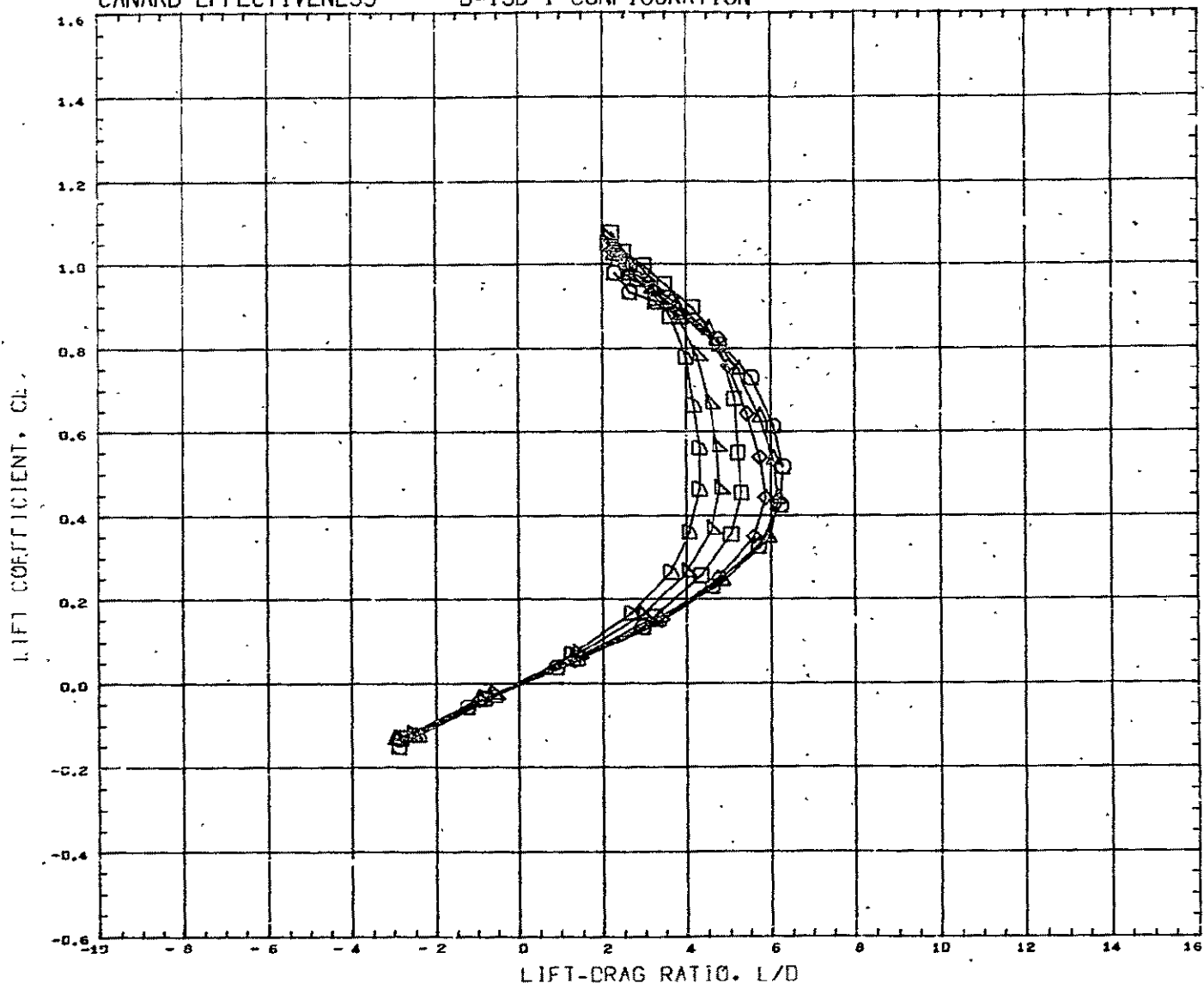
CANARD EFFECTIVENESS

B-15B-1 CONFIGURATION



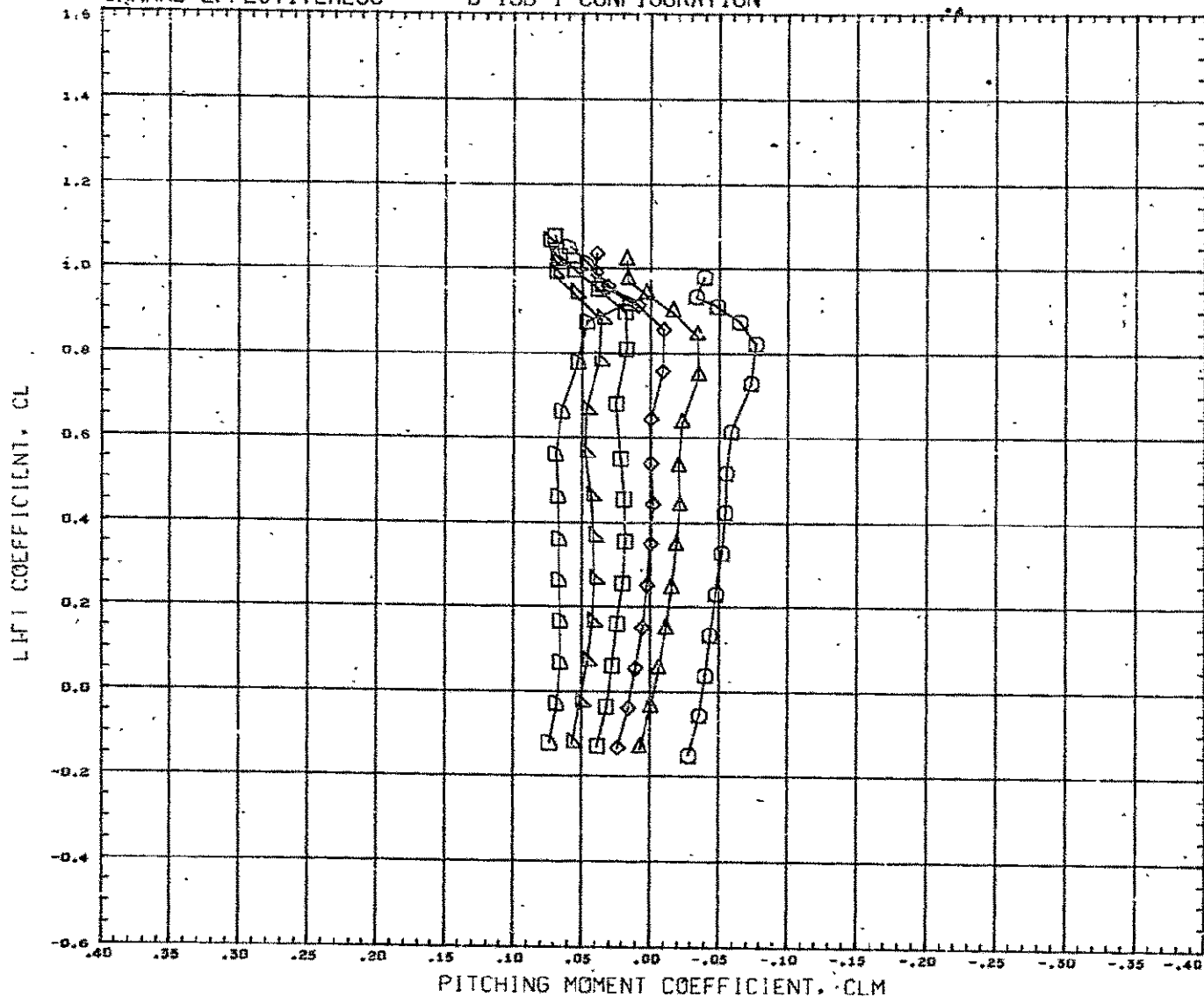
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEV. TR	AIL. RW	RUDDER	CANVTR	REFERENCE INFORMATION
(BCV030)	GDLST 587-1 B21X1C4V7W16	DC = -10	DE = 0	0.000	0.000	0.000	-10.000	SREF 380.3904 SQ. IN
(BCV022)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(BCV026)	GDLST 587-1 B21X1C4V7W16	DC = 5	DE = 0	0.000	0.000	0.000	5.000	BREF 30.4400 IN.
(BCV027)	GDLST 587-1 B21X1C4V7W16	DC = 10	DE = 0	0.000	0.000	0.000	10.000	XHRP 33.4360 IN.
(BCV028)	GDLST 587-1 B21X1C4V7W16	DC = 15	DE = 0	0.000	0.000	0.000	15.000	YHRP 0.0000 IN.
(BCV029)	GDLST 587-1 B21X1C4V7W16	DC = 20	DE = 0	0.000	0.000	0.000	20.000	ZHRP 3.9380 -IN.
BETA	0.000							SCALE 0.0175

CANARD EFFECTIVENESS B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AIRCRN	RUDDER	CANVTR	REFERENCE INFORMATION
(BCV030)	GDLST 587-1 B21X1C4V7W16 DC = -10 DE = 0	0.000	0.000	0.000	-10.000	SREF 380.3004 SQ. IN
(BCV022)	GDLST 587-1 B21X1C4V7W16 DC = 0 DE = 0	0.000	0.000	0.000	0.000	LREF 15.2151 IN.
(BCV026)	GDLST 587-1 B21X1C4V7W16 DC = 5 DE = 0	0.000	0.000	0.000	5.000	BREF 30.4400 IN.
(BCV027)	GDLST 587-1 B21X1C4V7W16 DC = 10 DE = 0	0.000	0.000	0.000	10.000	XHRP 33.4360 IN.
(BCV028)	GDLST 587-1 B21X1C4V7W16 DC = 15 DE = 0	0.000	0.000	0.000	15.000	YHRP 0.0000 IN.
(BCV029)	GDLST 587-1 B21X1C4V7W16 DC = 20 DE = 0	0.000	0.000	0.000	20.000	ZHRP 3.9380 IN.
	BETA 0.000					SCALE 0.0175

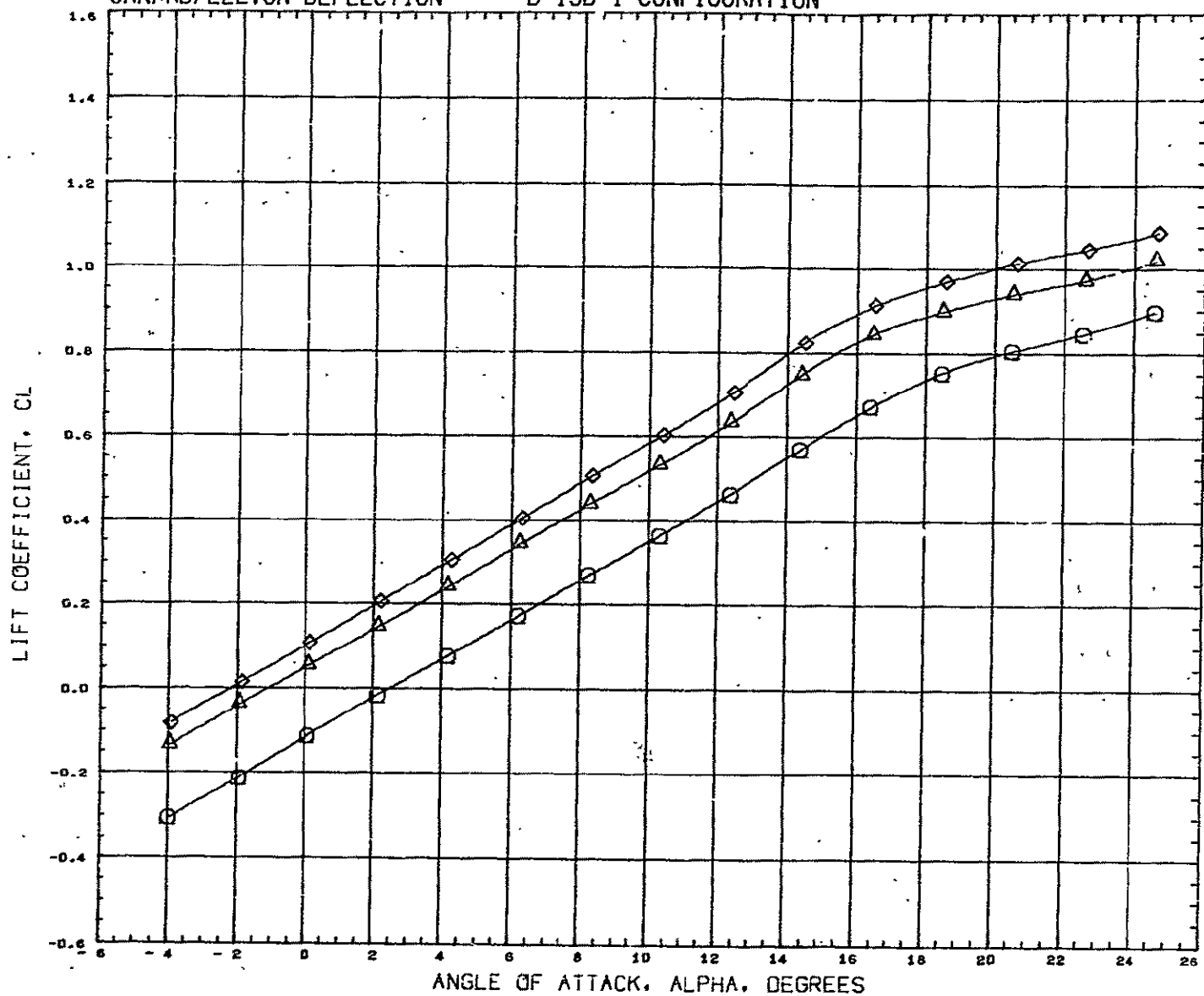
CANARD EFFECTIVENESS B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILTRN	RUDDER	CANVTR	REFERENCE INFORMATION
BCV030	QDLST 587-1 B21X1C4V7W16	DC = -10	DE = 0	0.000	0.000	0.000	-10.000	SREF 380.3004 SQ. IN
BCV022	QDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.000	LREF 15.2121 IN.
BCV026	QDLST 587-1 B21X1C4V7W16	DC = 5	DE = 0	0.000	0.000	0.000	5.000	SREF 30.4400 IN.
BCV027	QDLST 587-1 B21X1C4V7W16	DC = 10	DE = 0	0.000	0.000	0.000	10.000	XMRP 33.6360 IN.
BCV028	QDLST 587-1 B21X1C4V7W16	DC = 15	DE = 0	0.000	0.000	0.000	15.000	YMRP 0.0000 IN.
BCV029	QDLST 587-1 B21X1C4V7W16	DC = 20	DE = 0	0.000	0.000	0.000	20.000	ZMRP 3.9360 IN.
BETA	0.000							SCALE 0.0175

CANARD/ELEVON DEFLECTION

B-15B-1 CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (ACV031) GDLST 587-1 B21X1C4V7W16
 (BCV022) GDLST 587-1 B21X1C4V7W16
 (ACV032) GDLST 587-1 B21X1C4V7W16

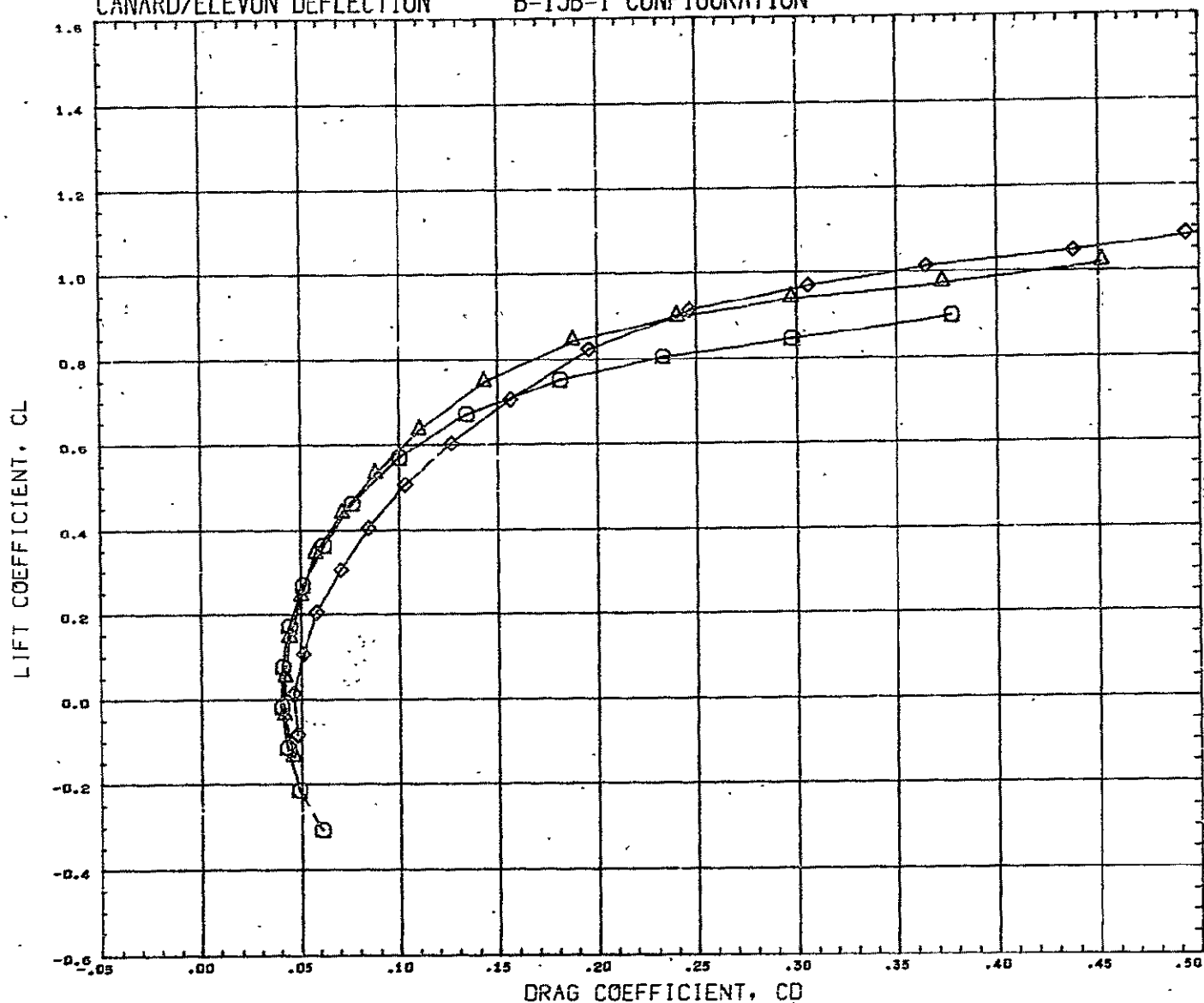
ANGLE OF ATTACK, ALPHA, DEGREES

DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
-10	-10	-10.000	0.000	0.000	-10.000	SREF	380.3004	sq. IN
0	0	0.000	0.000	0.000	0.000	LREF	15.2150	IN.
15	3	3.000	0.000	0.000	15.000	BREF	30.4400	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

BETA 0.000

CANARD/ELEVON DEFLECTION

B-15B-1 CONFIGURATION

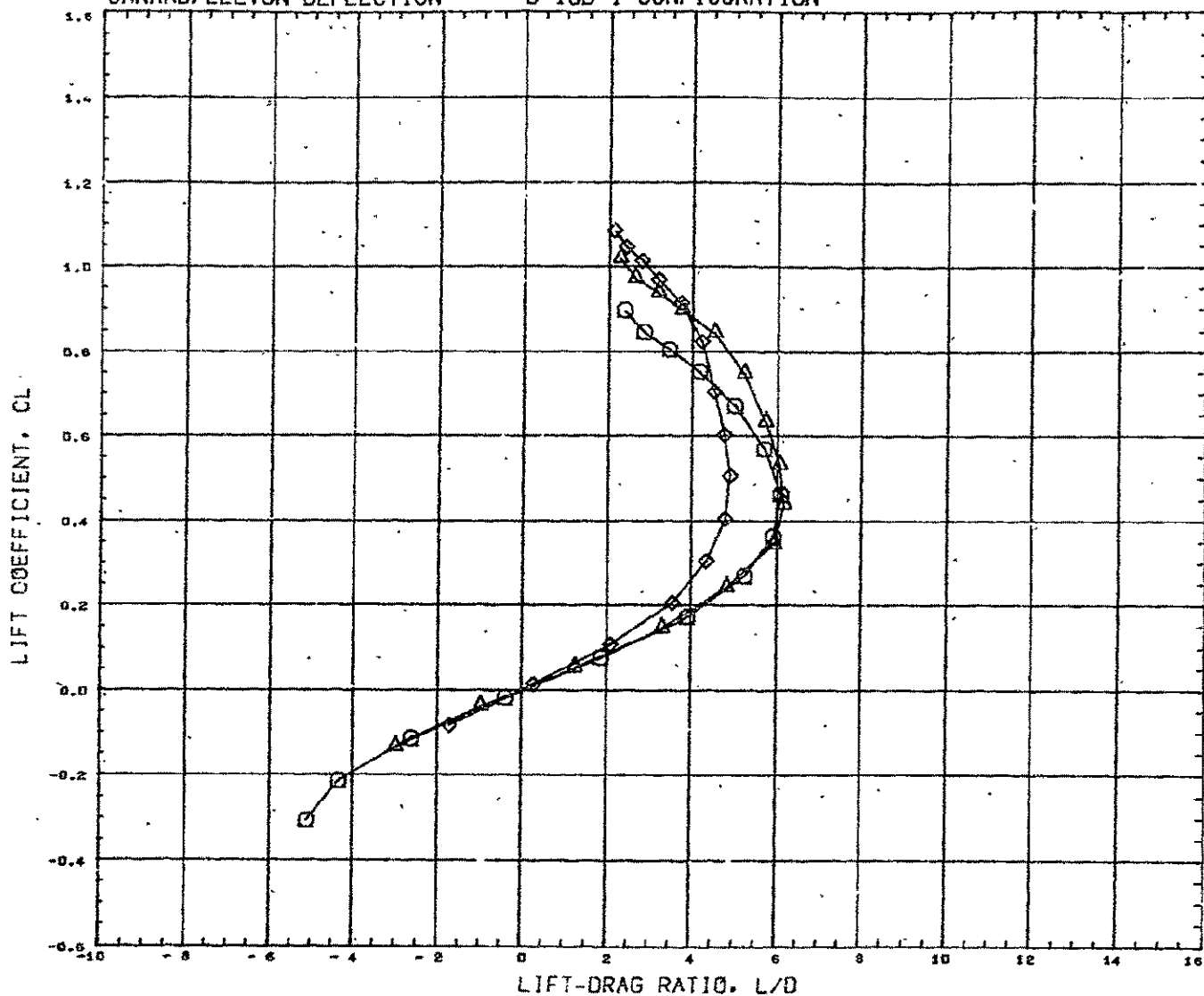


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV031)	○	GDLST 587-1 B21X1C4V7W16	-10	-10	-10.000	0.000	0.000	-10.000	SREF	380.3004	sq. IN
(BCV022)	△	GDLST 587-1 B21X1C4V7W16	0	0	0.000	0.000	0.000	0.000	LREF	15.2150	IN.
(ACV032)	◇	GDLST 587-1 B21X1C4V7W16	15	3	3.000	0.000	0.000	15.000	BREF	30.4400	IN.
									XMRP	33.4360	IN.
									YMRP	0.0000	IN.
									ZMRP	3.9380	IN.
									SCALE	0.0175	

DETA 0.000

CANARD/ELEVON DEFLECTION

B-15B-1 CONFIGURATION



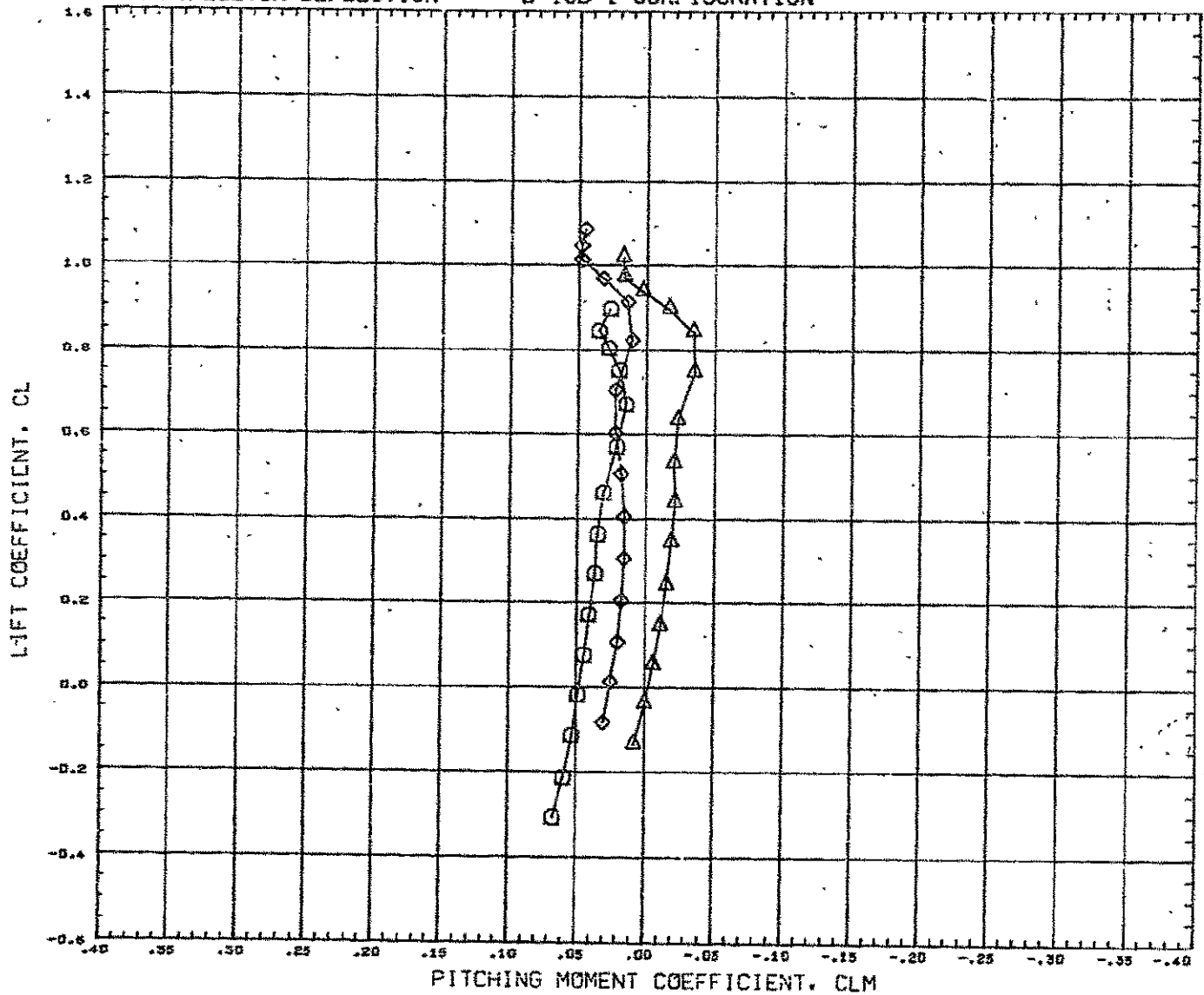
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ACV031)	GDLST 587-1 B21X1C4V7W16 DC = -10 DE = -10	-10.000	0.000	0.000	-10.000	SREF 380.3004 SQ. IN.
(BCV022)	GDLST 587-1 B21X1C4V7W16 DC = 0 DE = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(ACV032)	GDLST 587-1 B21X1C4V7W16 DC = 15 DE = 5	3.000	0.000	0.000	15.000	BREF 30.4400 IN.
						XWRP 33.4360 IN.
						YWRP 0.0000 IN.
						ZWRP 5.9380 IN.
						SCALE 0.0175

BETA: 0.000

P/3E 128

CANARD/ELEVON DEFLECTION

B-15B-1 CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ACV031) (ACV032) (BCV022) (ACV032)
 (ACV031) (ACV032) (BCV022) (ACV032)
 (ACV031) (ACV032) (BCV022) (ACV032)

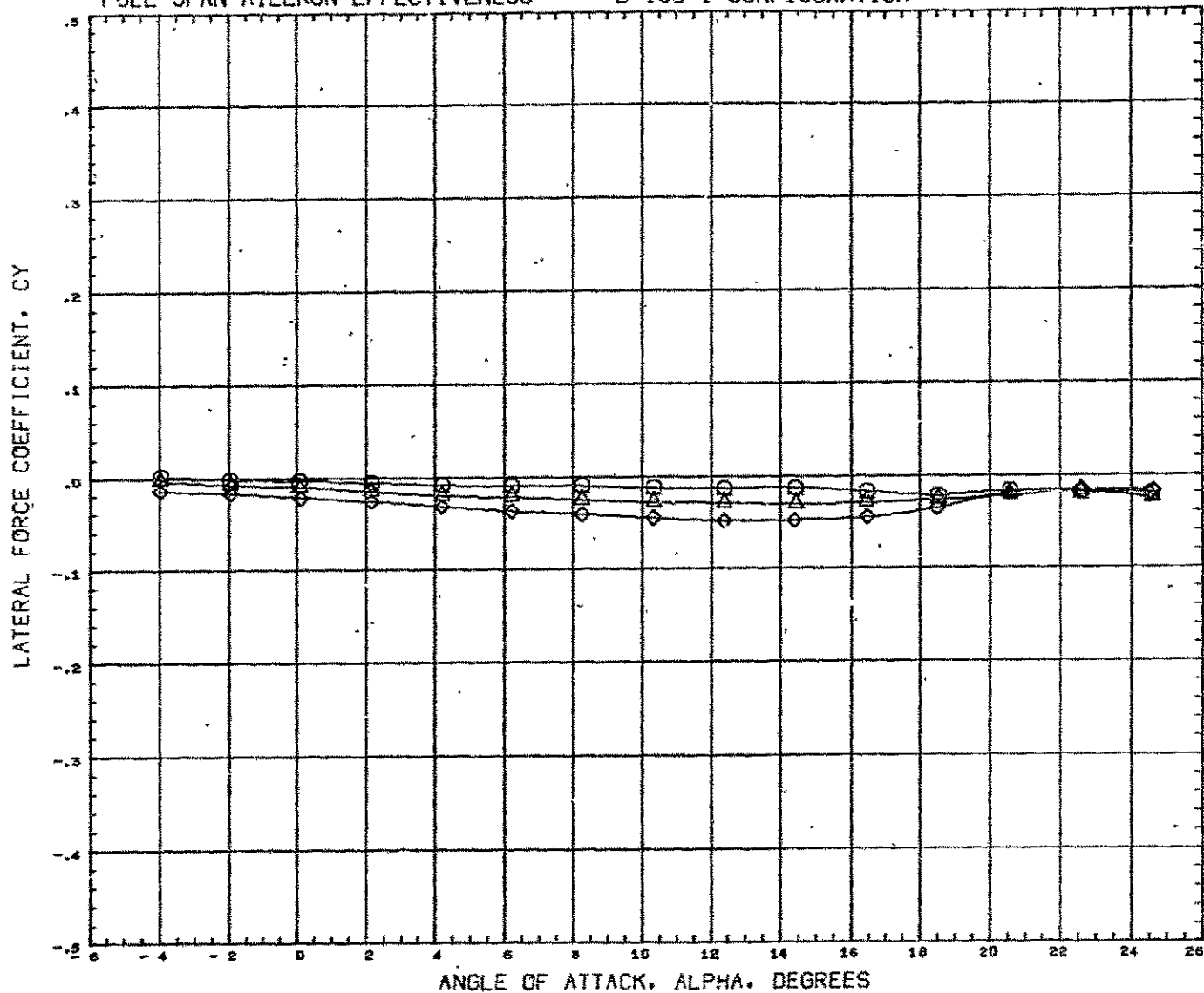
BETA 0.000

PITCHING MOMENT COEFFICIENT, CLM

DC	DE	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
-10	-10	-10.000	0.000	0.000	-10.000	SREF 380.2004 94. IN
0	0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
15	3	0.000	0.000	0.000	15.000	BREF 30.4400 IN.
						XMRP 33.4300 IN.
						YMRP 0.0000 IN.
						ZMRP 5.9300 IN.
						SCALE 0.0175

FULL SPAN AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION



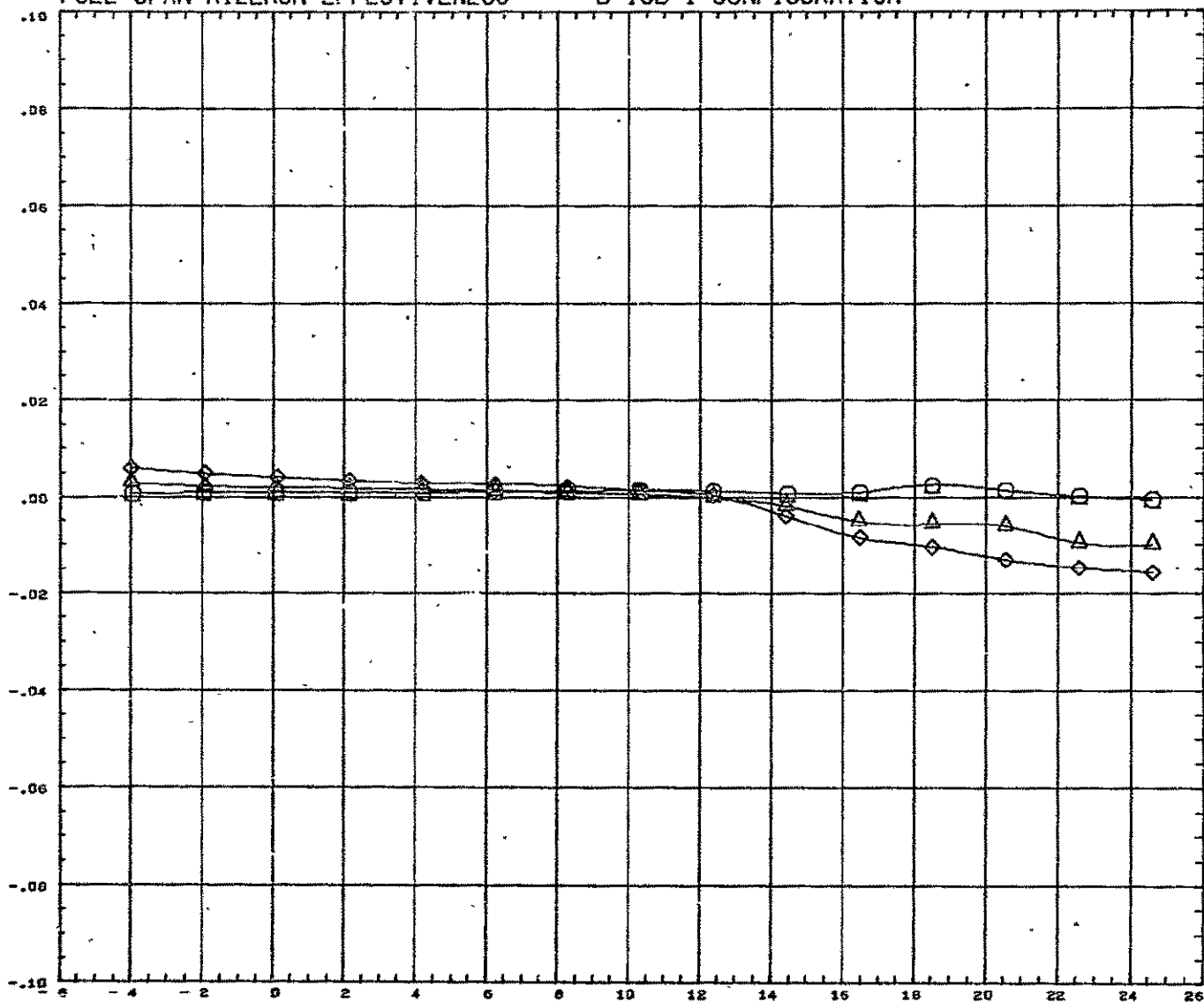
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DA	BETA	CANVT	AILRON	RUDDER	REFERENCE INFORMATION	
(CCVD51)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF	380.3504 SQ. IN
(ACVD46)	GDLST 587-1 B21X1C4V7W16	DE = 7	DA = 10	0.000	0.000	10.000	0.000	LREF	15.2150 IN.
(ACVD49)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 20	0.000	0.000	20.000	0.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

MACH 0.201

FULL SPAN AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION

YAWING MOMENT COEFFICIENT, CLN (STABILITY AXIS)



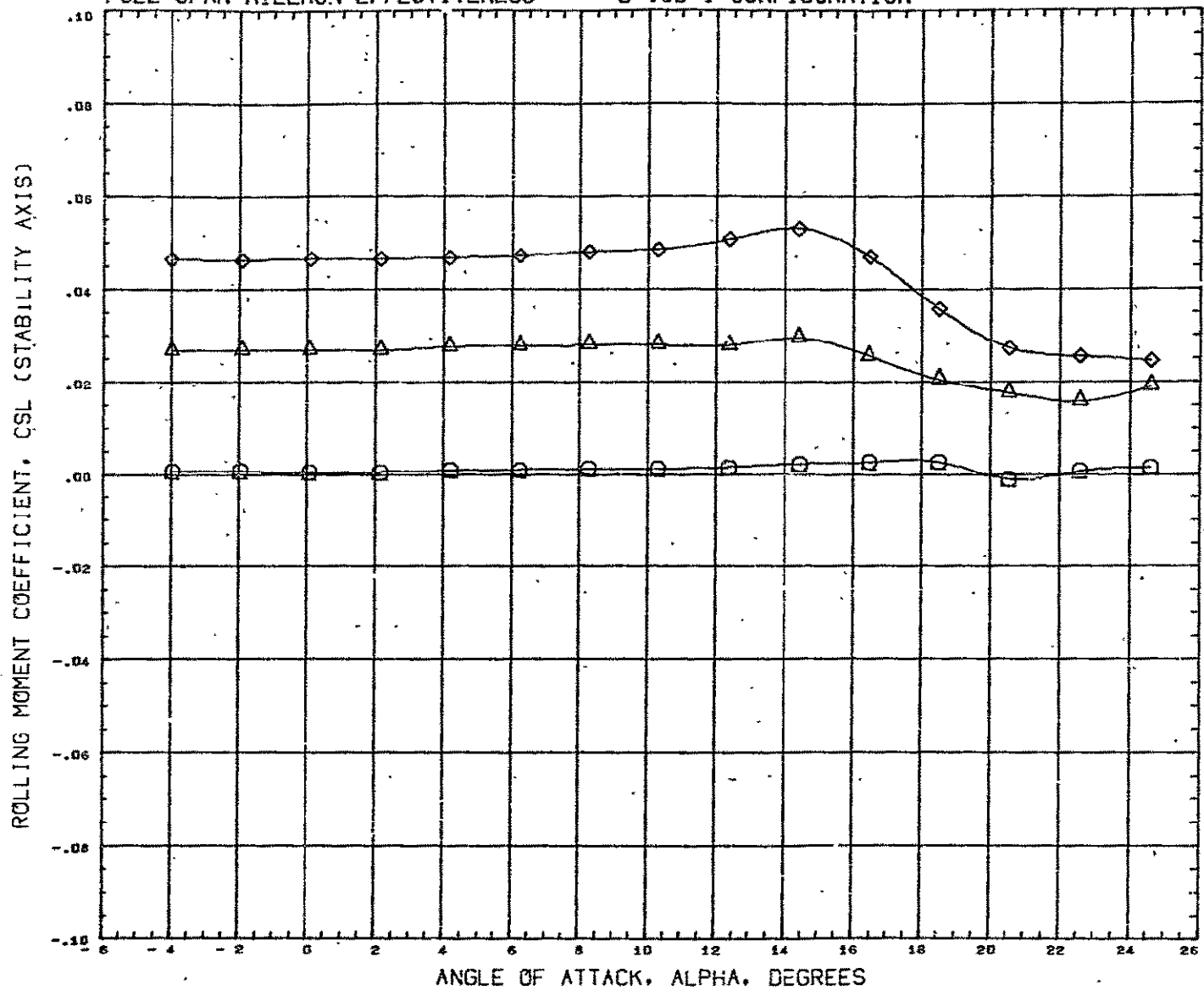
ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DA = 0	BETA	CANVTR	AILRON	RUDDER	REFERENCE INFORMATION		
(CCV051)	GDLST 587-1 B21A1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
(ACV046)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	0.000	10.000	0.000	LREF	15.2150	IN.
(ACV049)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 20	0.000	0.000	20.000	0.000	BREF	30.4400	IN.
								XMRP	33.4360	IN.
								YMRP	0.0000	IN.
								ZMRP	3.9360	IN.
								SCALE	0.0175	

MACH 0.201

FULL SPAN AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION

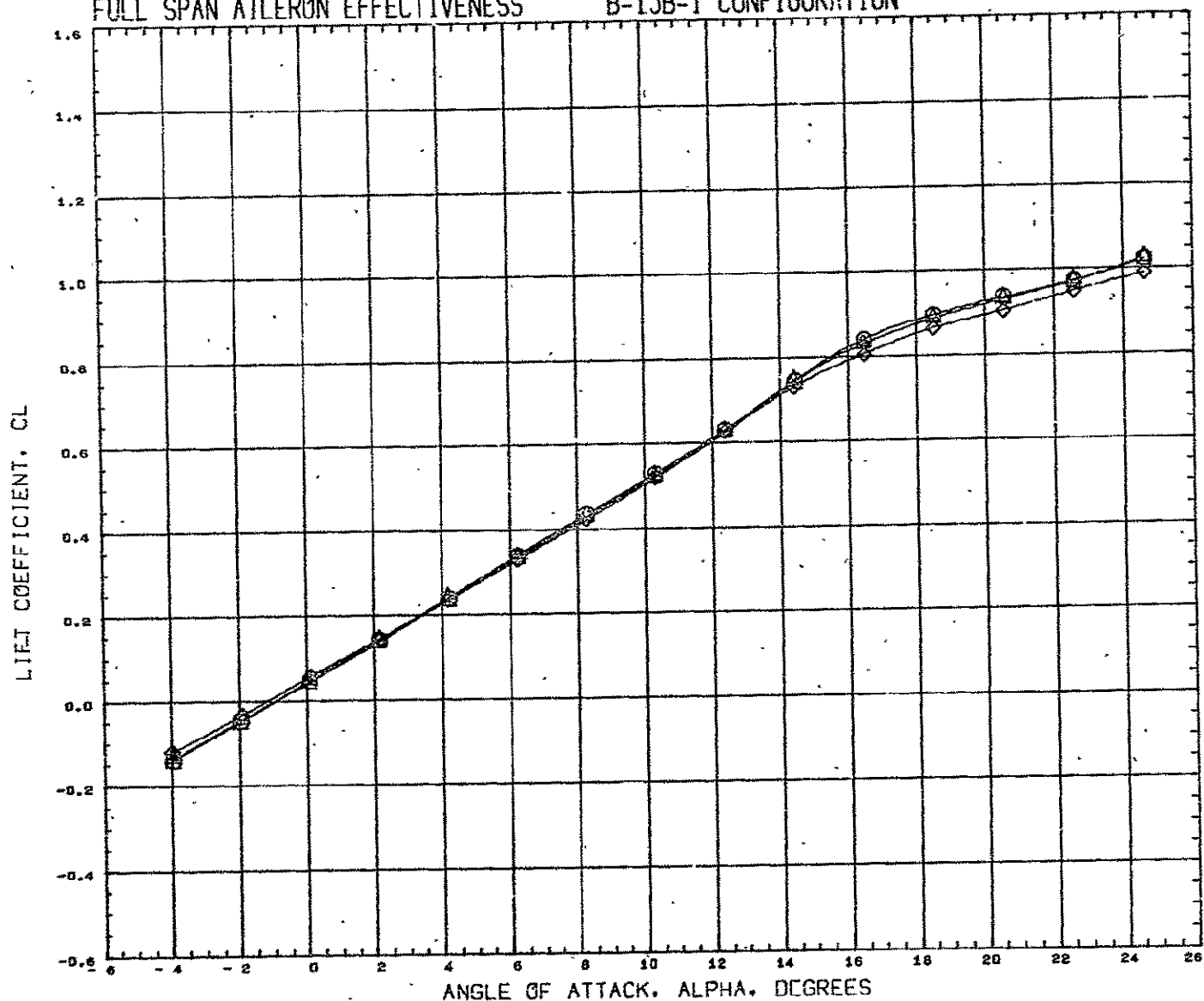


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DA	BETA	CANVTX	AILRON	RUDDER	REFERENCE INFORMATION	
(CCV051)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV046)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	0.000	10.000	0.000	LREF	15.2150 IN.
(ACV049)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 20	0.000	0.000	20.000	0.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

MACH 0.201

FULL SPAN AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION

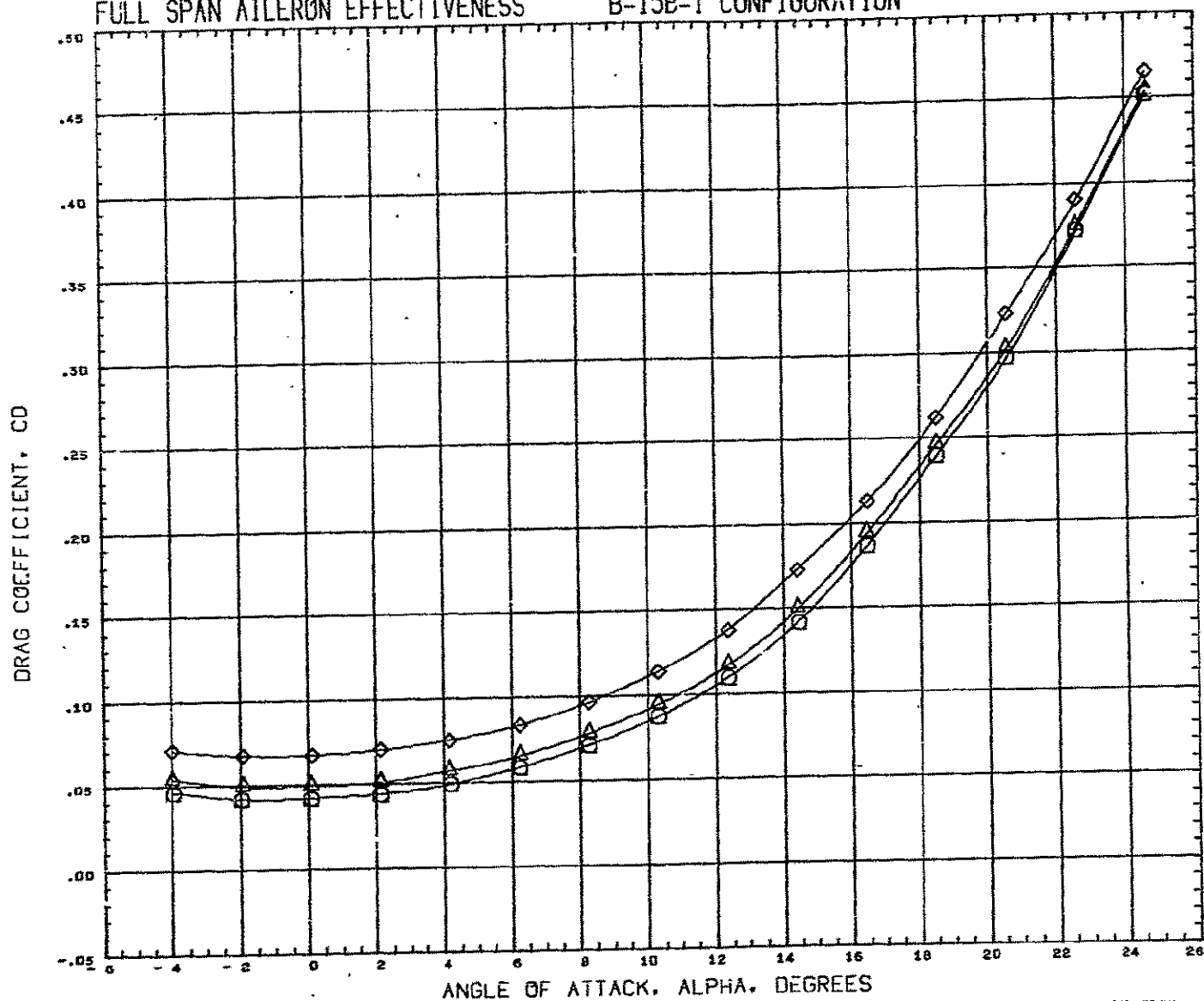


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DA	BETA	CANVT	AILRON	RUDDER	REFERENCE INFORMATION	
(CCV051)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV046)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	0.000	10.000	0.000	LREF	15.2150 IN.
(ACV049)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 20	0.000	0.000	20.000	0.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

MACH 0.201

FULL SPAN AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CCV051)	GDLST 587-1 B21X1C4V7W16
(ACV046)	GDLST 587-1 B21X1C4V7W16
(ACV049)	GDLST 587-1 B21X1C4V7W16

ANGLE OF ATTACK, ALPHA, DEGREES

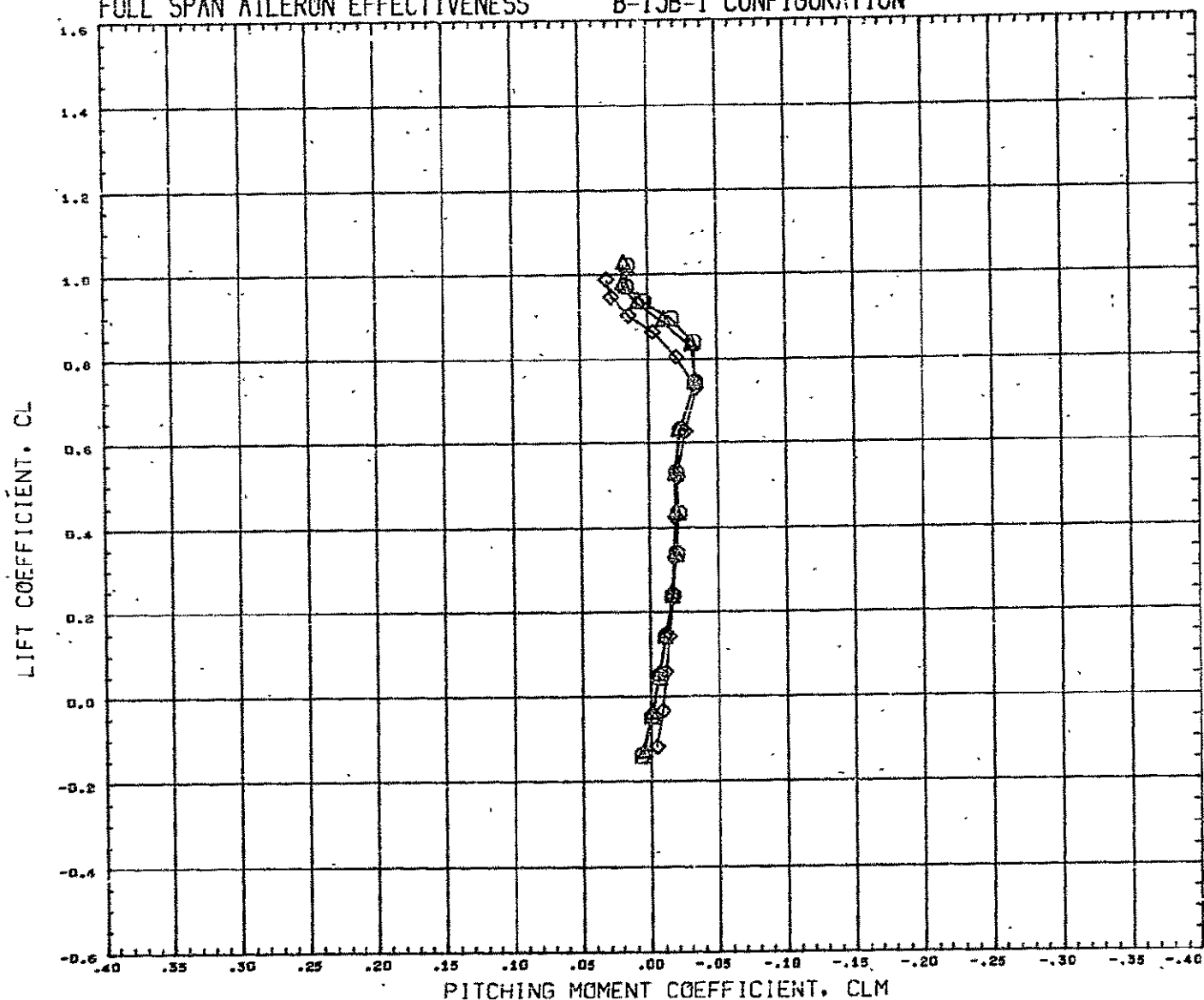
BETA	CANVT	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	10.000	0.000
0.000	0.000	20.000	0.000

REFERENCE INFORMATION	
SREF	380.3004 SQ. IN
LREF	15.2150 IN.
BREF	30.4400 IN.
XMRP	33.4360 IN.
YMRP	0.0000 IN.
ZMRP	3.9380 IN.
SCALE	0.0175

MACH 0.291

FULL SPAN AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION

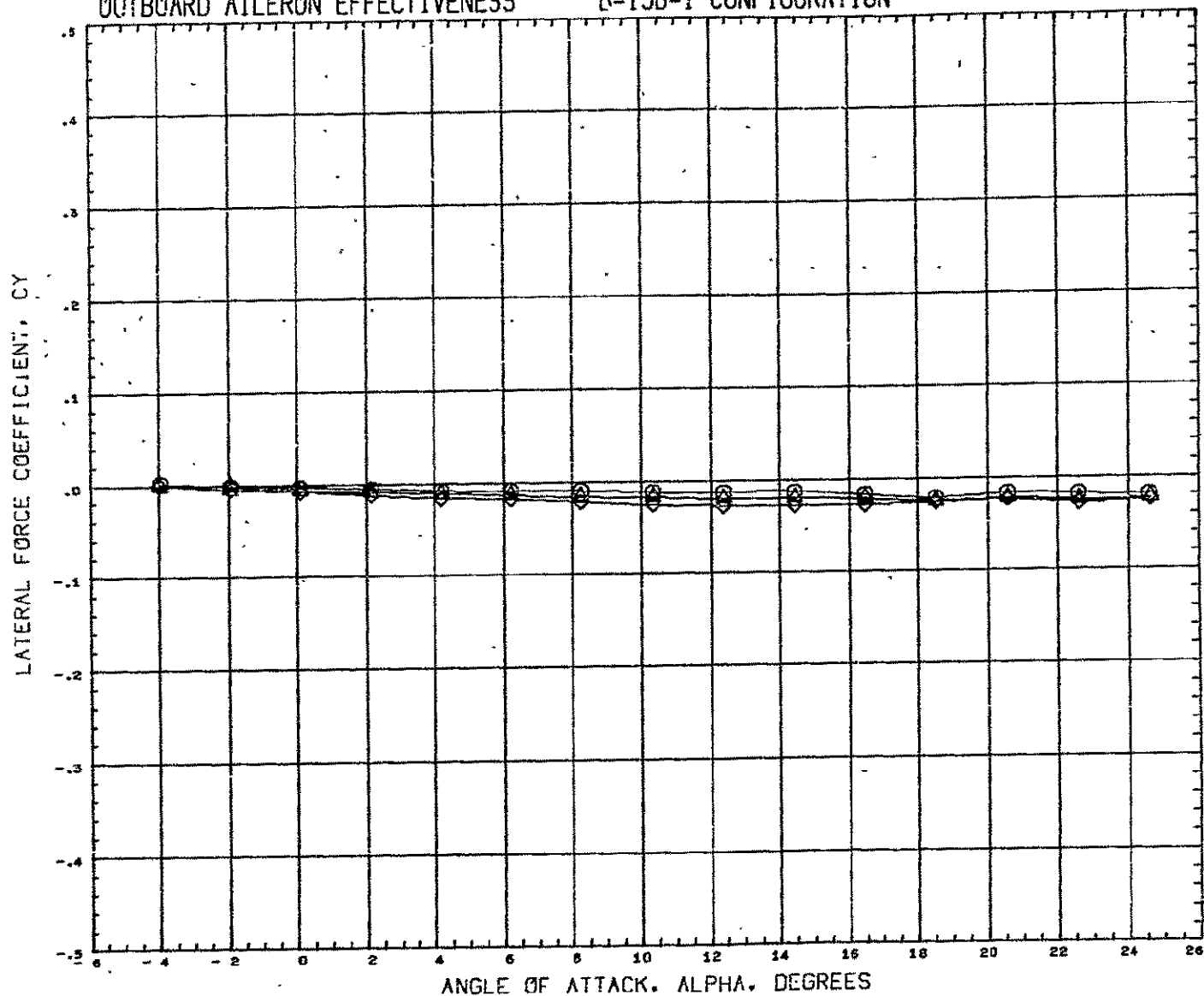


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DA	BETA	CANVT	AILRON	RUDDER	REFERENCE INFORMATION	
(CCV051)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV046)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	0.000	10.000	0.000	LREF	15.2150 IN.
(ACV049)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 20	0.000	0.000	20.000	0.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

MACH 0.201

OUTBOARD AILERON EFFECTIVENESS

R-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CCV051)	GDLST 587-1 B21X1C4V7W16
(ACV047)	GDLST 587-1 B21X1C4V7W16
(ACV048)	GDLST 587-1 B21X1C4V7W16

ANGLE OF ATTACK, ALPHA, DEGREES

BETA	AILRON	DELO	DERO
0.000	0.000	0.000	0.000
0.000	5.000	10.000	-10.000
0.000	10.000	20.000	-20.000

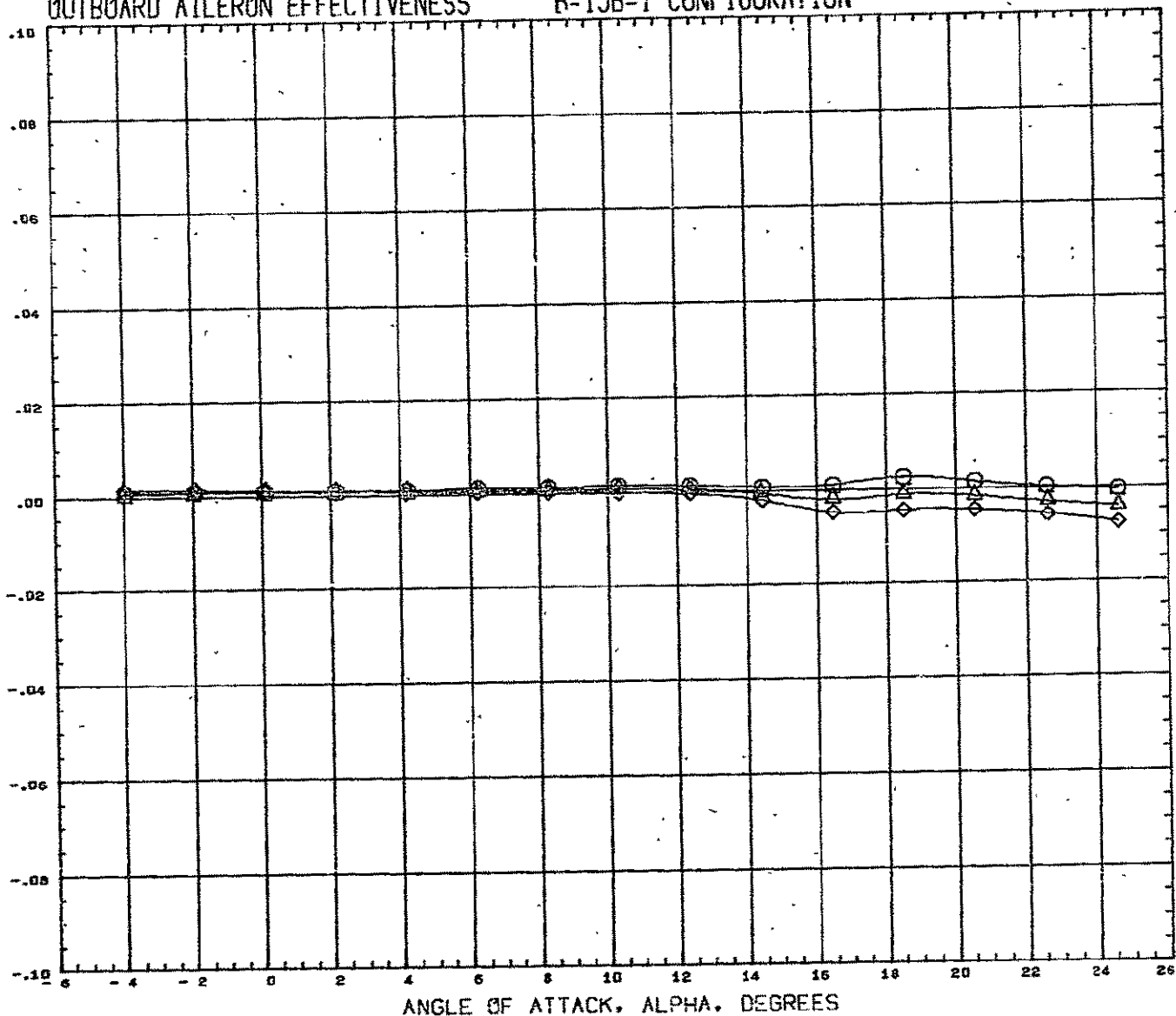
REFERENCE INFORMATION	
SREF	360.3004 SQ. IN
LREF	15.2450 IN.
BREF	30.4400 IN.
XMRP	33.4360 IN.
YMRP	0.0000 IN.
ZMRP	3.9380 IN.
SCALE	0.0175

WACH 0.201

OUTBOARD AILERON EFFECTIVENESS

R-15B-1 CONFIGURATION

YAWING MOMENT COEFFICIENT, CLN (STABILITY AXIS)

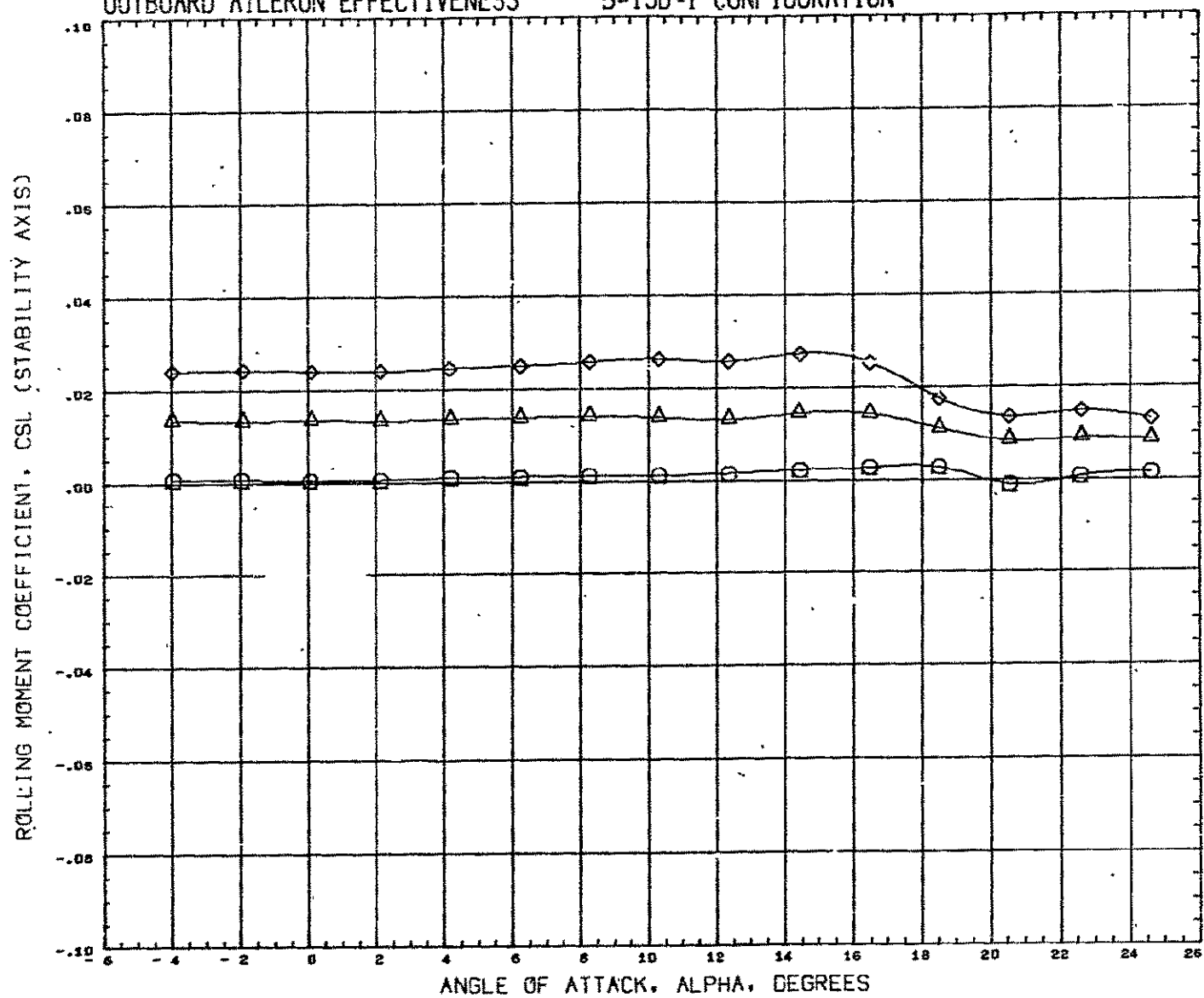


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DA	BETA	AILRON	DELO	DERO	REFERENCE INFORMATION	
(CCV051)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV047)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 5	0.000	5.000	10.000	-10.000	LREF	15.2150 IN.
(ACV048)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	10.000	20.000	-20.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								CALE	0.0175

MACH 0.251

OUTBOARD AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION

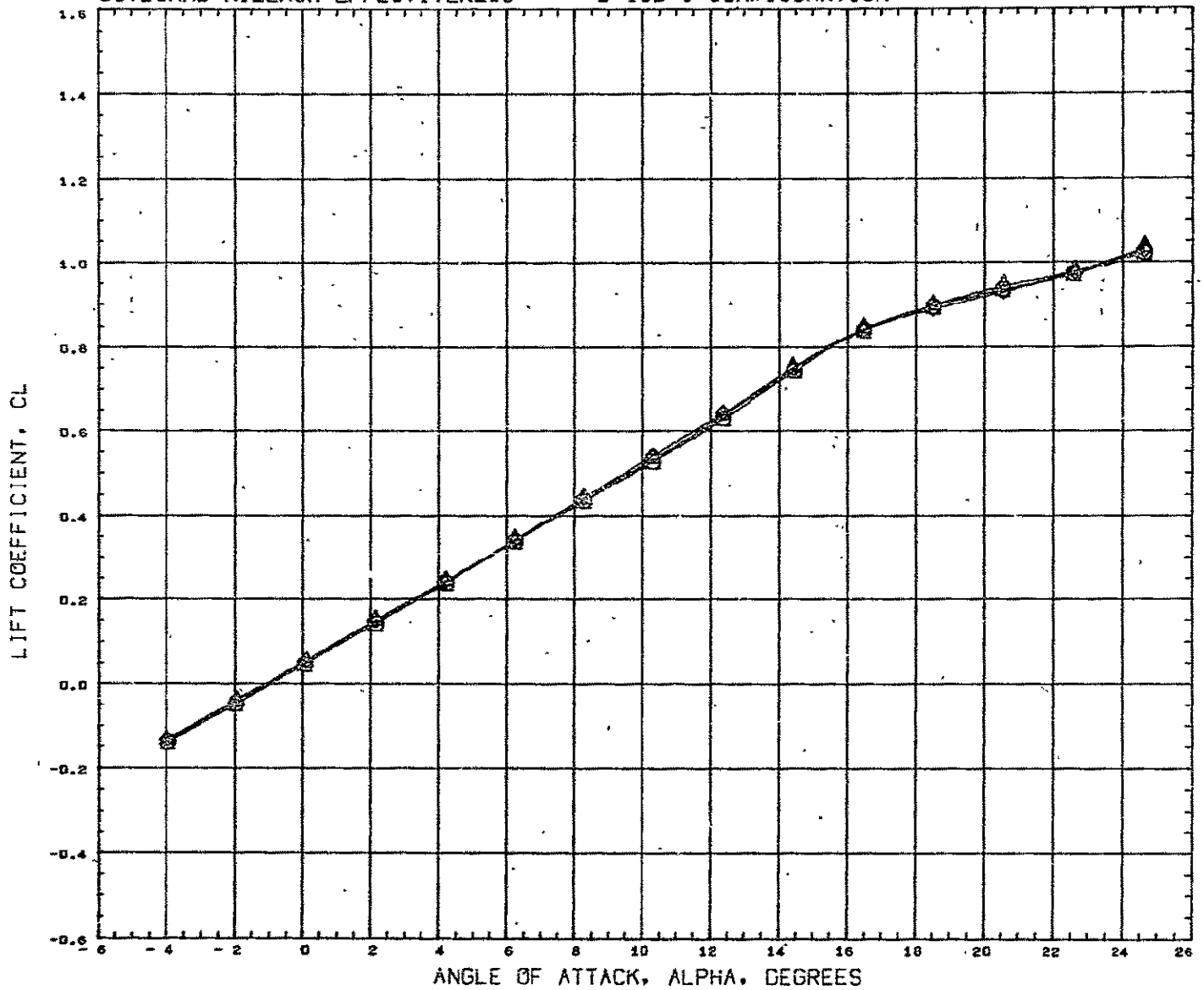


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	DELO	DERO	REFERENCE INFORMATION
(CCVD51)	GDLST 587-1 B21X1C4V7W16 DE = 0 DA = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(ACVD47)	GDLST 587-1 B21X1C4V7W16 DE = 0 DA = 5	0.000	5.000	10.000	-10.000	LREF 15.2150 IN.
(ACVD48)	GDLST 587-1 B21X1C4V7W16 DE = 0 DA = 10	0.000	10.000	20.000	-20.000	BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

WACK 0.201

OUTBOARD AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION

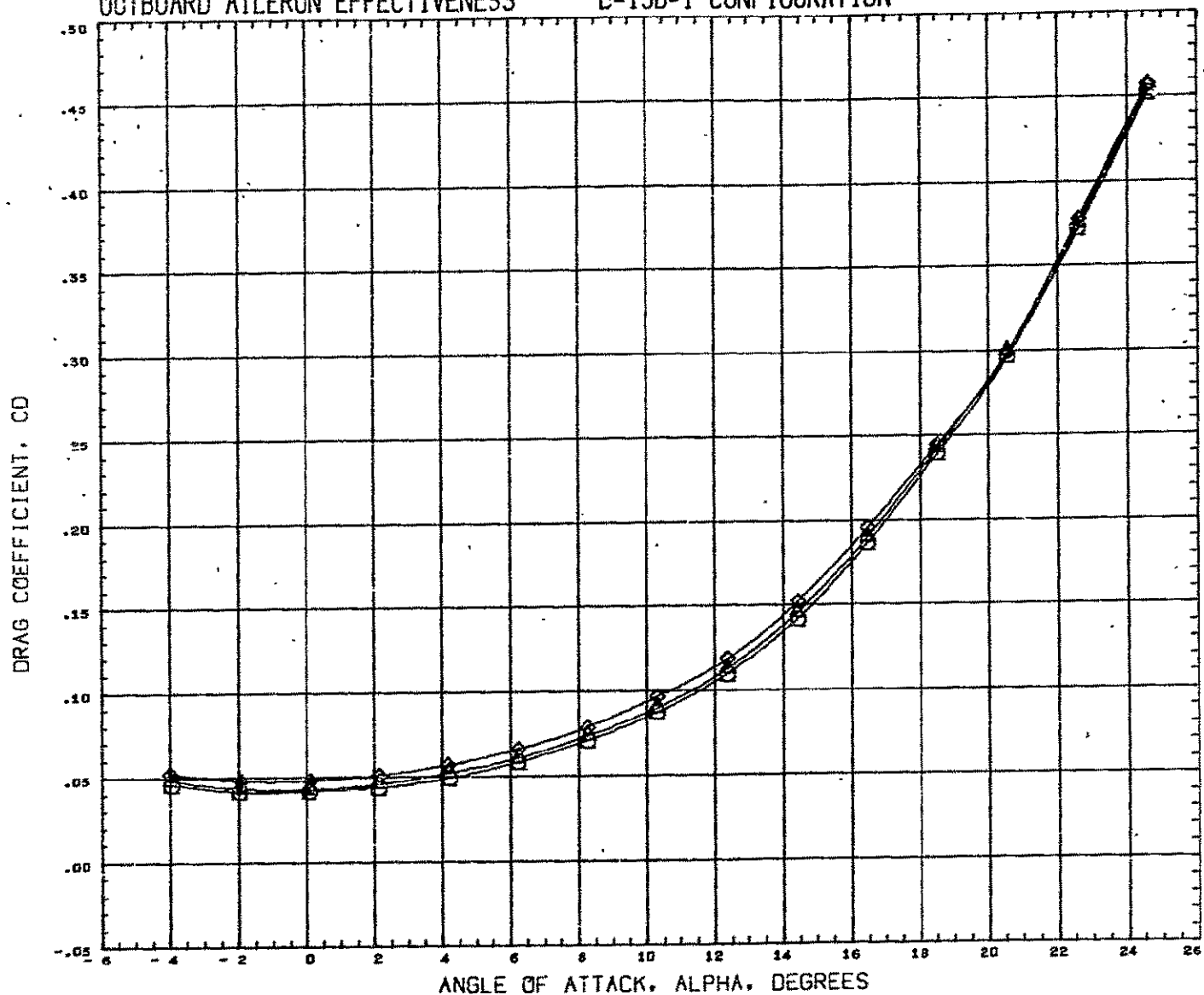


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DA = 0	BETA	AILRON	DELO	DERO	REFERENCE INFORMATION	
(CCV051)	6DLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV047)	6DLST 587-1 B21X1C4V7W16	DE = 0	DA = 5	0.000	5.000	10.000	-10.000	LREF	15.2150 IN.
(ACV048)	6DLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	10.000	20.000	-20.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

MACH 0.201

OUTBOARDAILERONEFFECTIVENESS

B-15B-1 CONFIGURATION

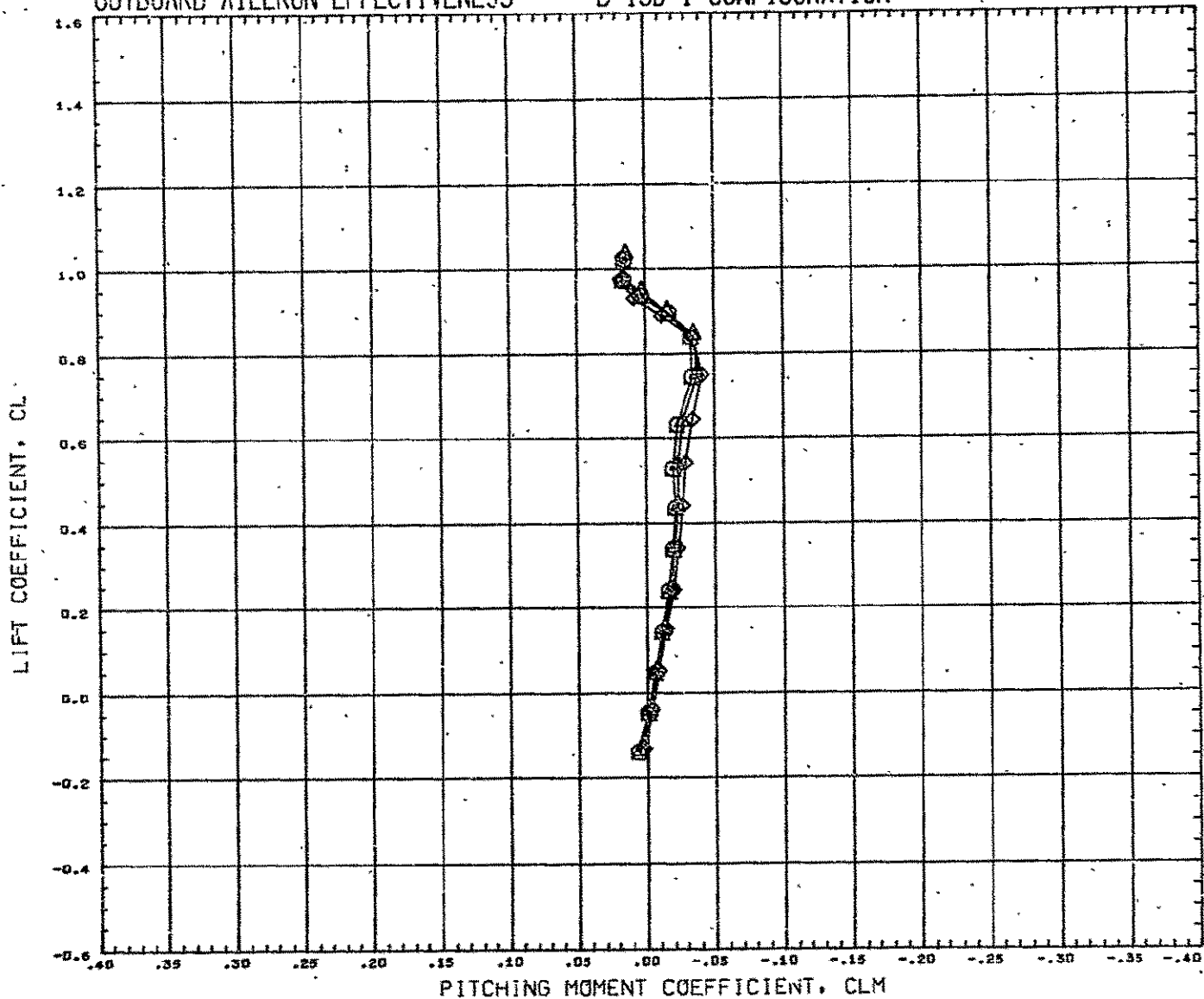


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DA = 0	BETA	AILRON	DELO	DERO	REFERENCE INFORMATION
(CCV051)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF 360.3004 SQ. IN
(ACV047)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 5	0.000	5.000	10.000	-10.000	LREF 15.2150 IN.
(ACV048)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	10.000	20.000	-20.000	BREF 30.4400 IN.
								XHRP 33.4360 IN.
								YHRP 0.0000 IN.
								ZHRP 3.9380 IN.
								SCALE 0.0175

MACN 0.201

OUTBOARD AILERON EFFECTIVENESS

P-15B-1 CONFIGURATION



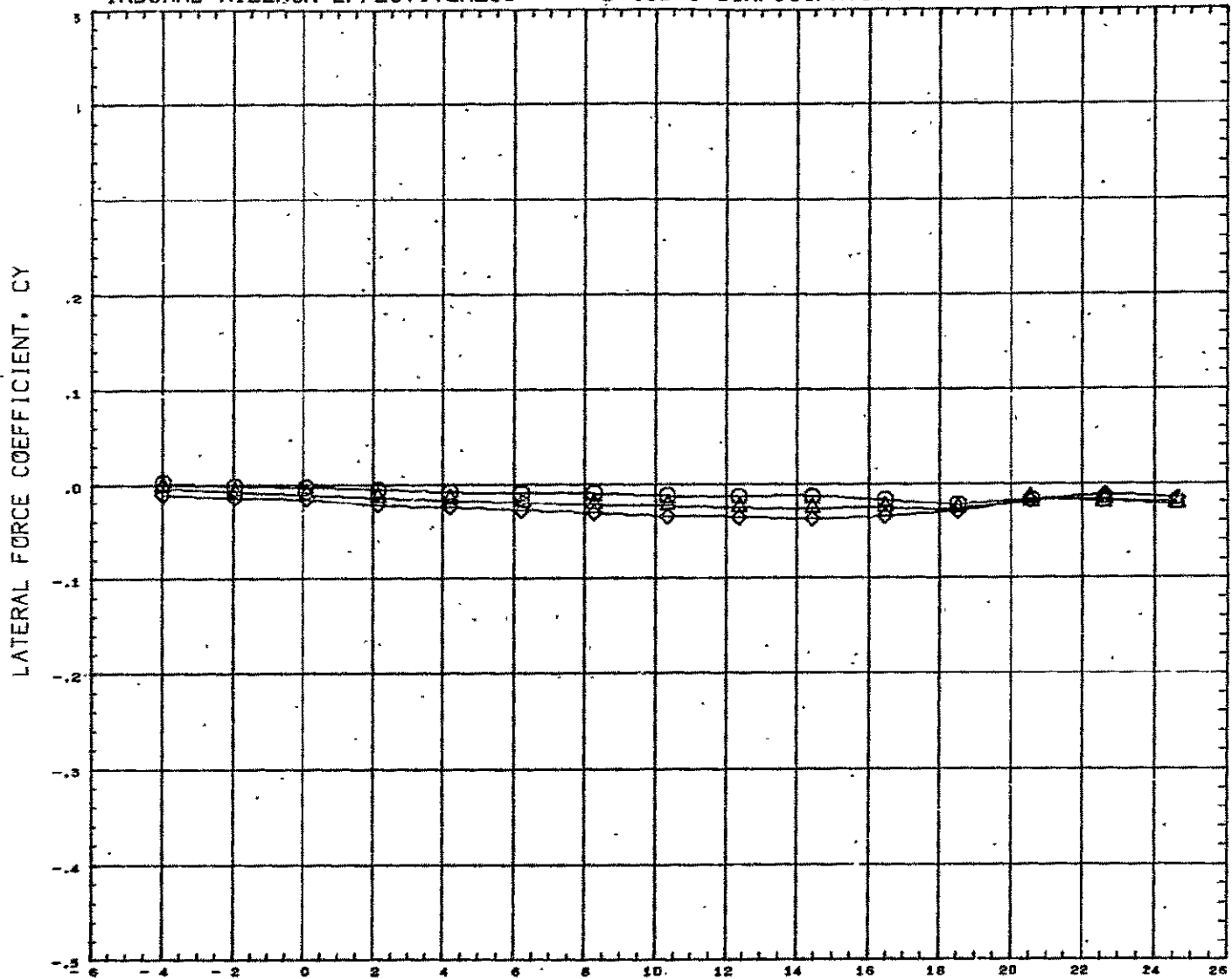
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DA	BETA	AILRON	DELO	DERO	REFERENCE INFORMATION
(CCV051)	GDLST 387-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(ACV047)	GDLST 387-1 B21X1C4V7W16	DE = 0	DA = 5	0.000	5.000	10.000	-10.000	LREF 15.2150 IN.
(ACV040)	GDLST 387-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	10.000	20.000	-20.000	BREF 30.4400 IN.
								XHRP 33.4360 IN.
								YHRP 0.0000 IN.
								ZHRP 3.9380 IN.
								SCALE 0.0175

MACH

0.201

INBOARD AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION



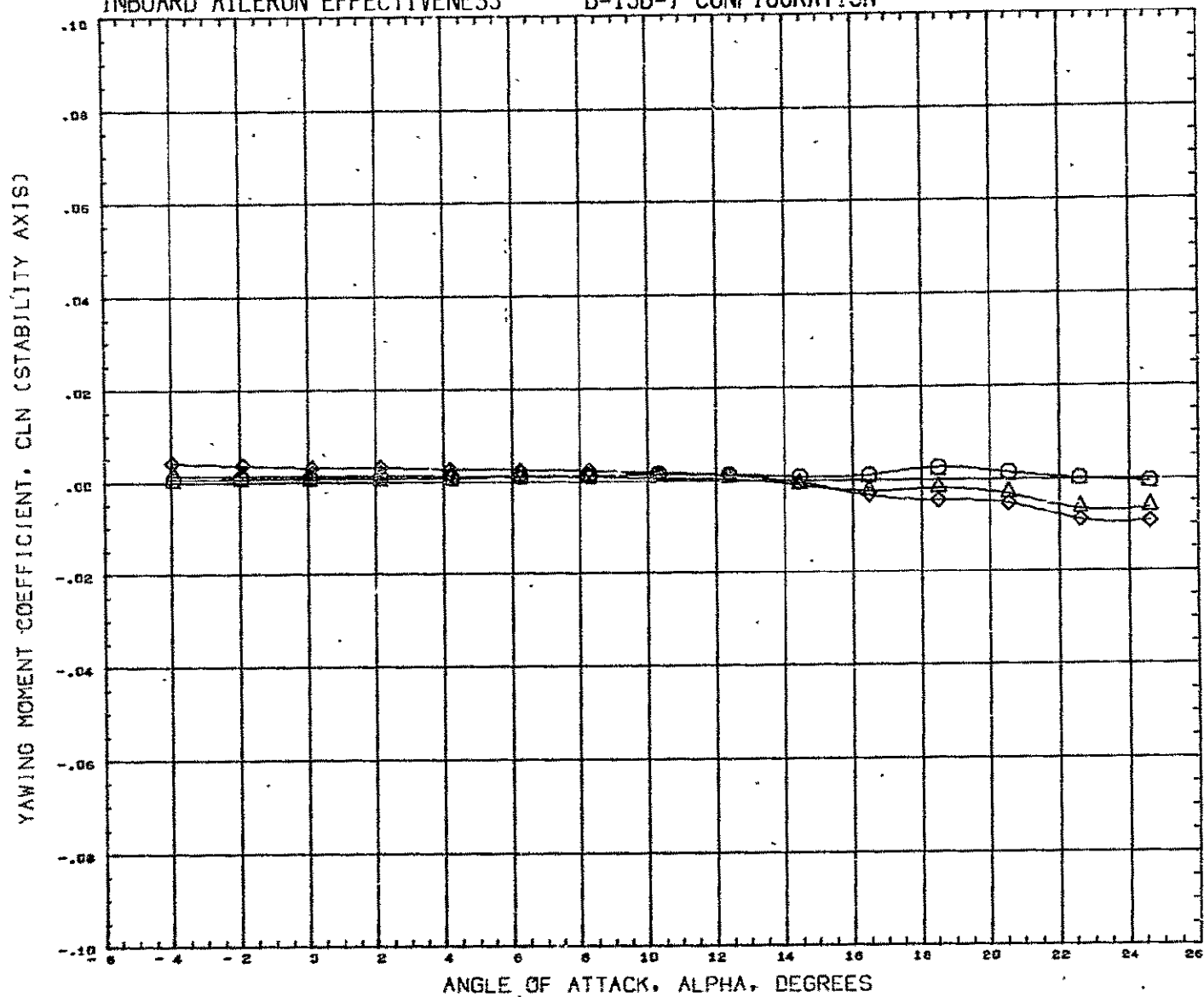
ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	DELI	DERI	REFERENCE INFORMATION
(CCV051)	GDLST 507-1 B21X1C4V7W16 DE = 0 DA = 0	0.000	0.000	0.000	0.000	SREF 380.5004 SQ. IN
(ACV045)	GDLST 507-1 B21X1C4V7W16 DE = 0 DA = 5	0.000	5.000	10.000	-10.000	LREF 15.2150 IN.
(CCV050)	GDLST 507-1 B21X1C4V7W16 DE = 0 DA = 10	0.000	10.000	20.000	-20.000	BREF 30.4400 IN.
						XMRP 33.4380 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

INBOARD AILERON EFFECTIVENESS

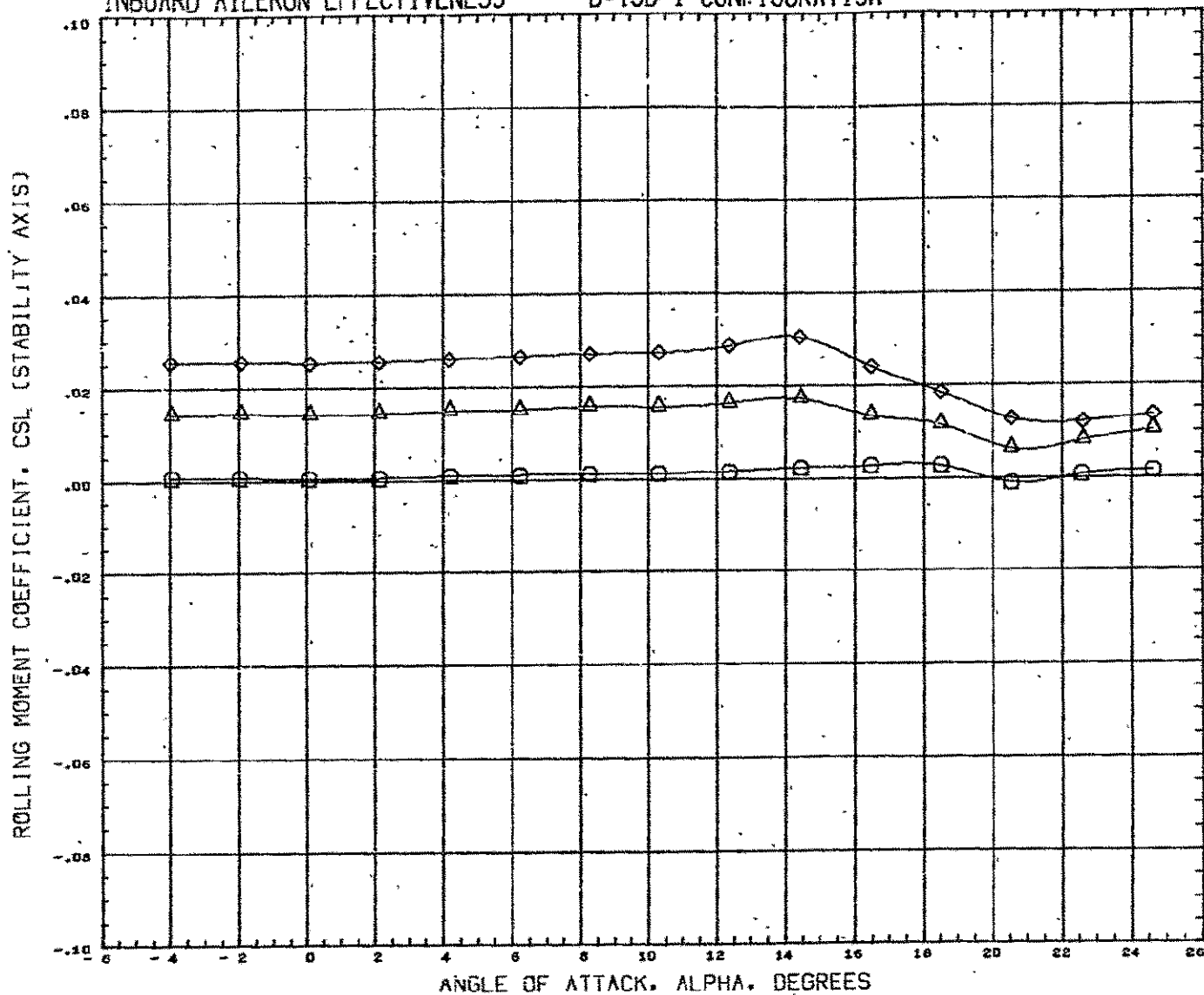
B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	DELI	DERI	REFERENCE INFORMATION	
(CCV051)	GDLST 587-1 B21X1C4V7W16 DE = 0 DA = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV045)	GDLST 587-1 B21X1C4V7W16 DE = 0 DA = 5	0.000	5.000	10.000	-10.000	LREF	15.2150 IN.
(ACV050)	GDLST 587-1 B21X1C4V7W16 DE = 0 DA = 10	0.000	10.000	20.000	-20.000	BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

INBOARD AILERON EFFECTIVENESS B-15B-1 CONFIGURATION

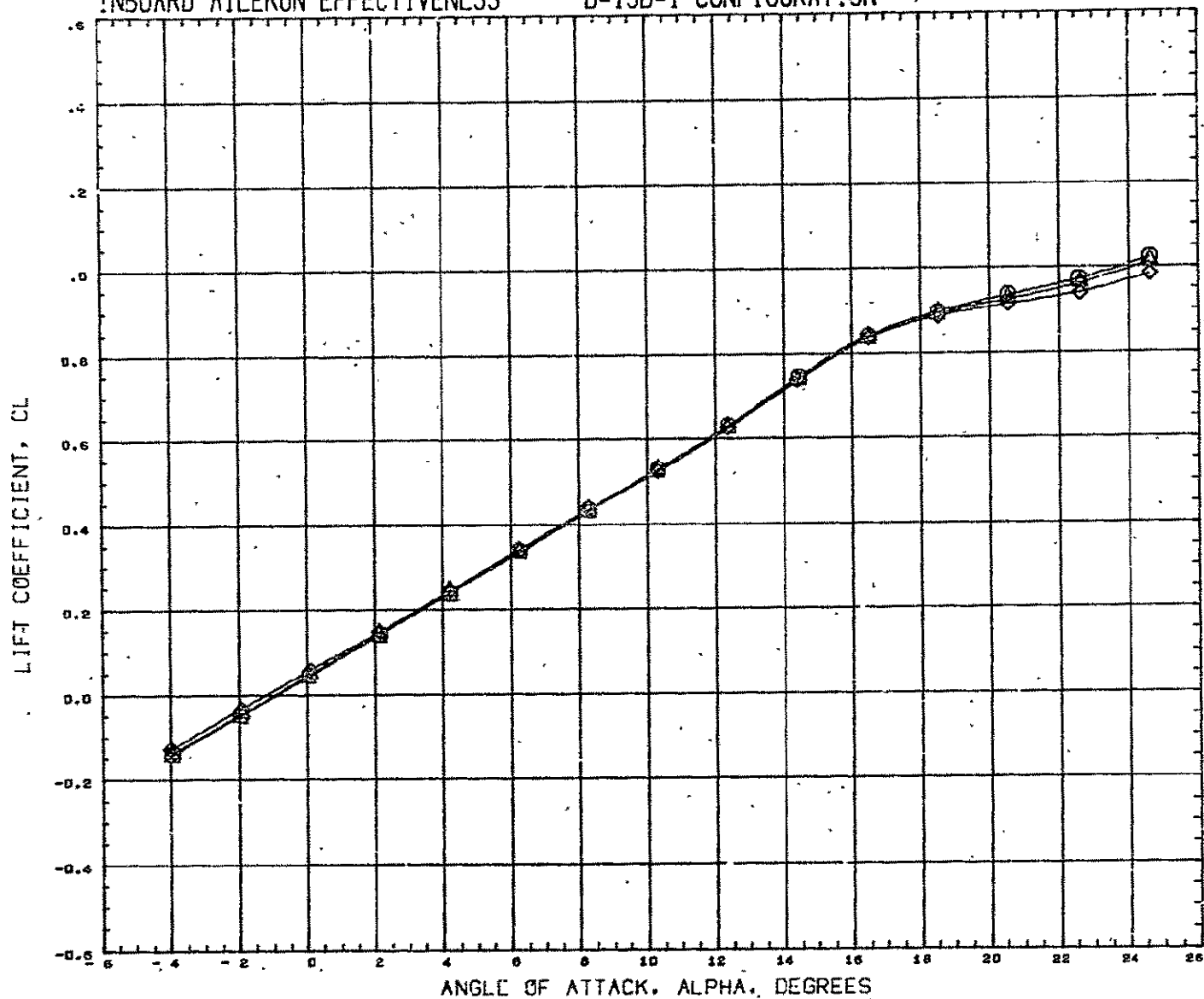


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DA = 0	BETA	AILRON	DELI	DERI	REFERENCE INFORMATION
(CCV051)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(ACV045)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 5	0.000	5.000	10.000	-10.000	LREF 15.2130 IN.
(ACV050)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	10.000	20.000	-20.000	BREF 39.4400 IN.
								XWRP 33.4360 IN.
								YWRP 0.0000 IN.
								RP 3.9380 IN.
								ALE 0.0175

MACH 0.201

INBOARD AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION

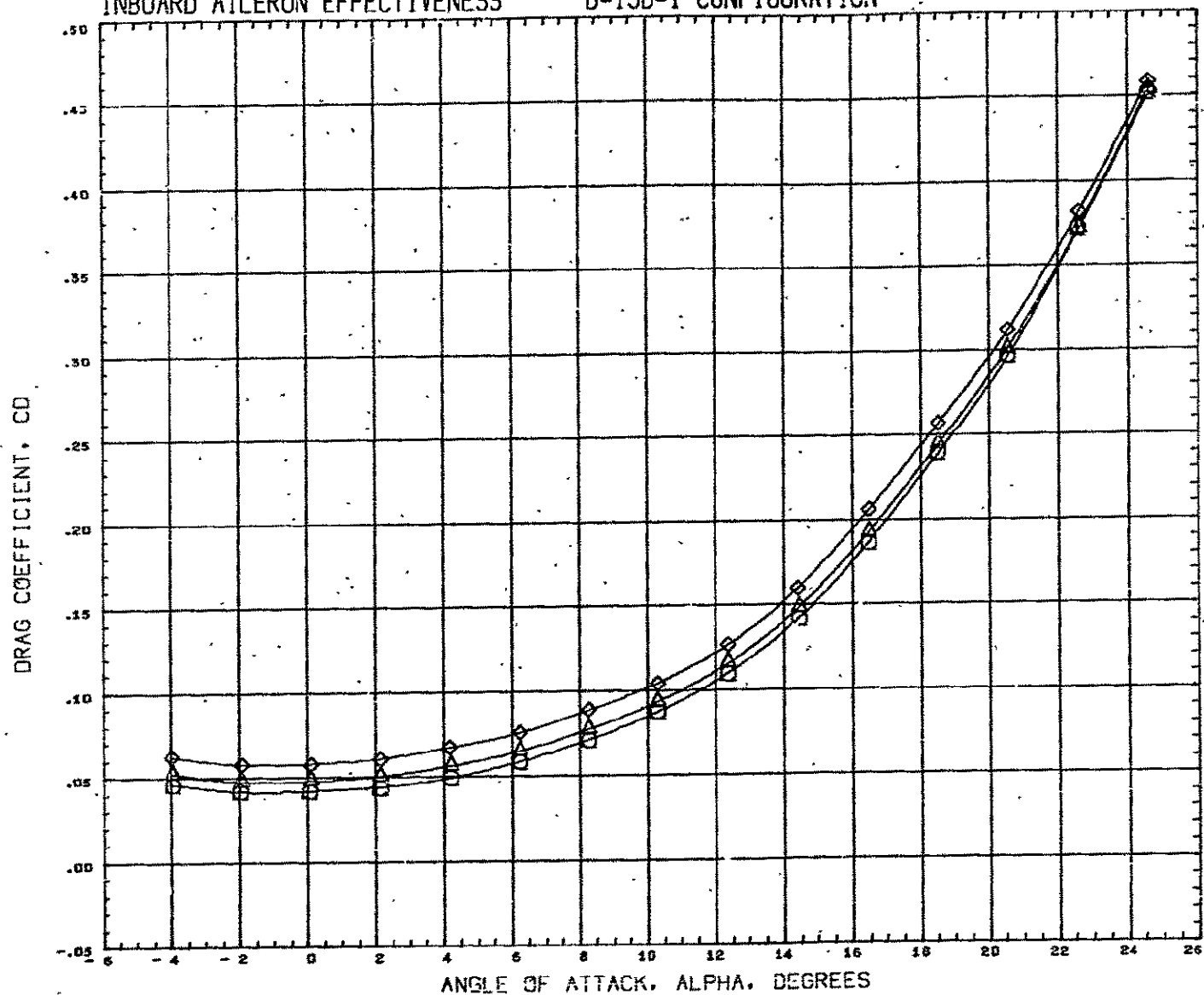


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	DELI	DERI	REFERENCE INFORMATION
(CCV051)	GDLST 587-1 B21X1C4V7W16 DE = 0 DA = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(ACV045)	GDLST 587-1 B21X1C4V7W16 CE = 0 DA = 5	0.000	5.000	10.000	-10.000	LREF 15.2150 IN.
(ACV050)	GDLST 587-1 B21X1C4V7W16 DE = 0 DA = 10	0.000	10.000	20.000	-20.000	BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

INBOARD AILERON EFFECTIVENESS

B-15B-1 CONFIGURATION

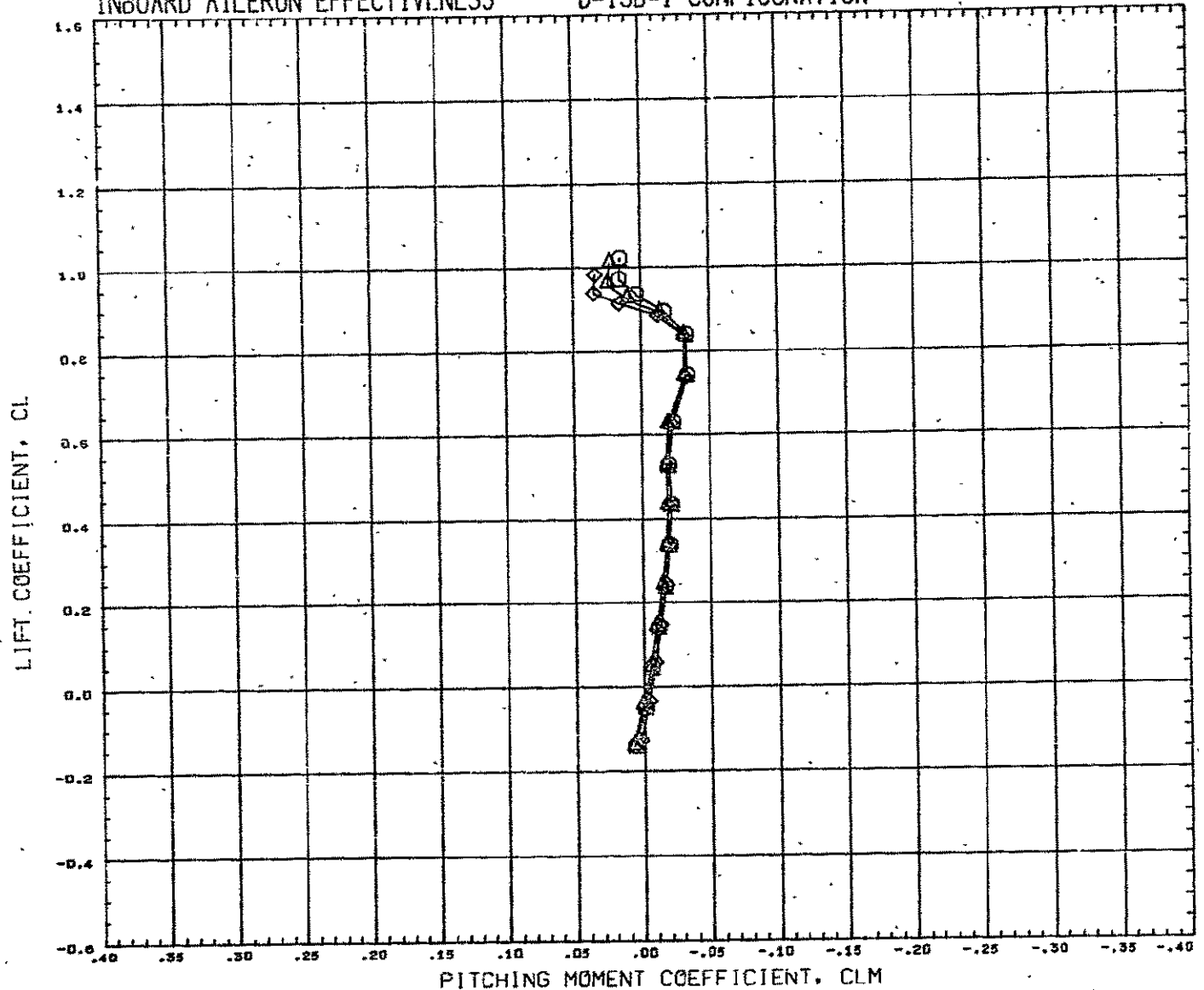


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DA = 0	BETA	AILRON	DELI	DERI	REFERENCE INFORMATION	
(CCV051)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN.
(ACV045)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 5	0.000	5.000	10.000	-10.000	LREF	15.2150 IN.
(ACV050)	GDLST 587-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	10.000	20.000	-20.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9300 IN.
								SCALE	0.0175

MACH 0.201

INBOARD AILERON EFFECTIVENESS

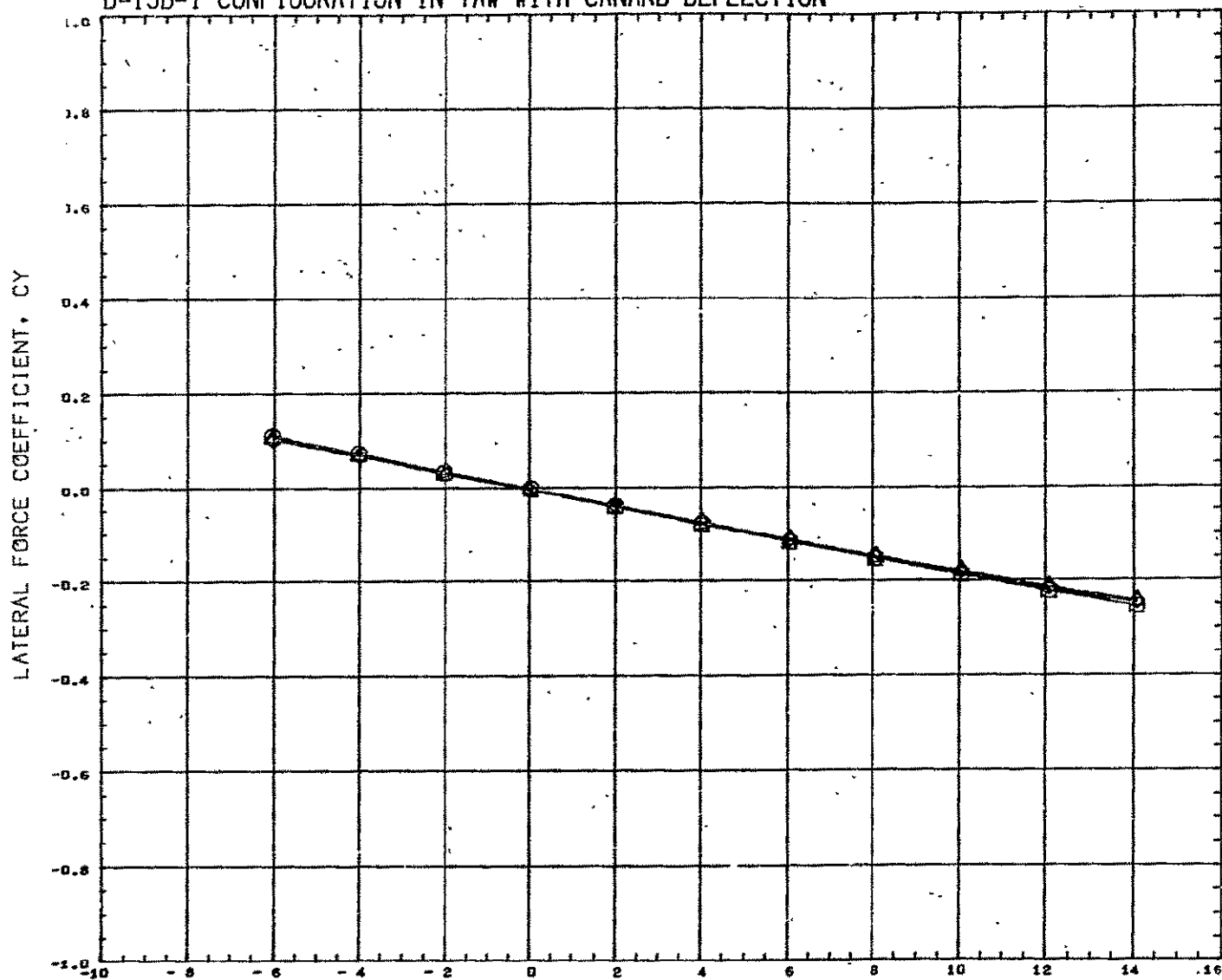
B-15B-1 CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DA = 0	BETA	AILRON	DELI	DERI	REFERENCE INFORMATION
(CCV051)	GDLST 567-1 B21X1C4V7W16	DE = 0	DA = 0	0.000	0.000	-0.000	0.000	SREF 380.3004 SQ. IN
(ACV045)	GDLST 567-1 B21X1C4V7W16	DE = 0	DA = 5	0.000	5.000	10.000	-10.000	LREF 15.2150 IN.
(ACV050)	GDLST 567-1 B21X1C4V7W16	DE = 0	DA = 10	0.000	10.000	20.000	-20.000	BREF 30.4400 IN.
								YREF 33.4360 IN.
								P 0.0000 IN.
								P 3.9380 IN.
								LE 0.0175

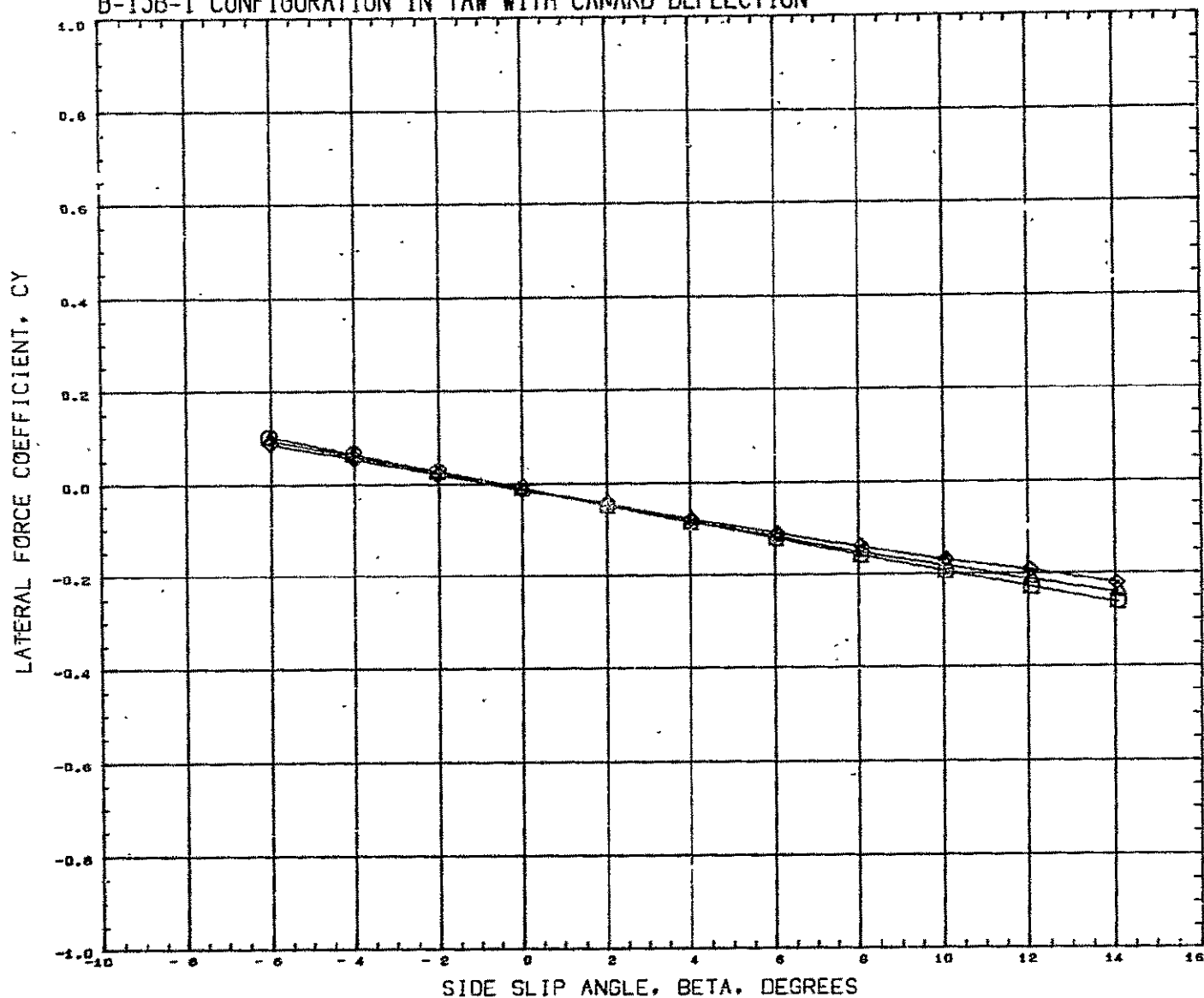
MACH 0.201

B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION



DATA SET SYMBOL		CONFIGURATION DESCRIPTION			ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV061)	□	GDLST 587-1	B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	SREF	380.3004	50. IN
(ACV063)	△	GDLST 587-1	B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	LREF	15.2150	IN.
(ACV064)	◇	GDLST 587-1	B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	BREF	30.4400	IN.
									XMRP	33.4360	IN.
									YMRP	0.0000	IN.
									ZMRP	3.9380	IN.
									SCALE	0.0175	
ALPHA		0.000									

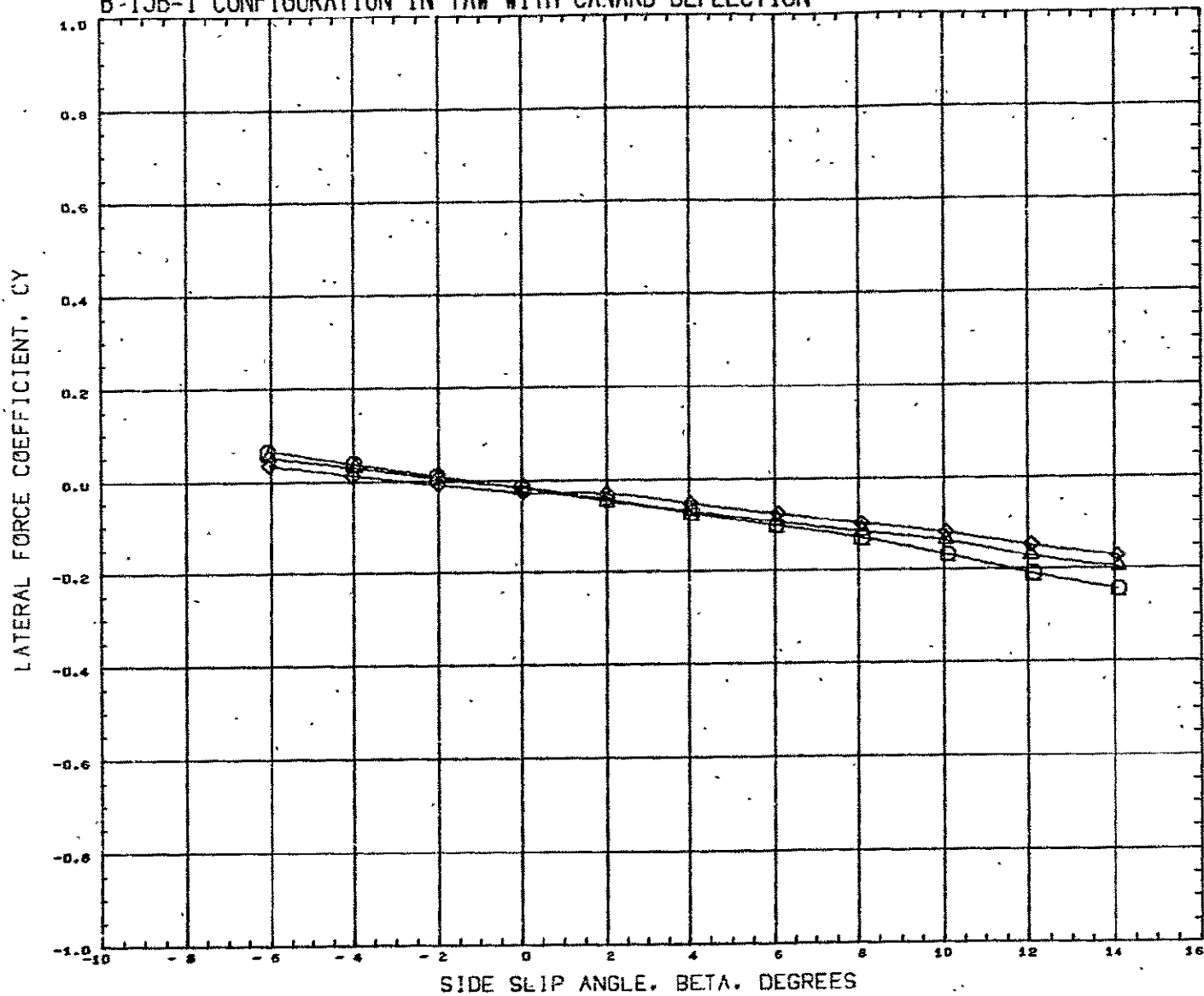
B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DC = 0	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004	\$q\$, IN
(ACV063)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2250	IN.
(ACV064)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400	IN.
								XMRP	33.4360	IN.
								YMRP	0.0000	IN.
								ZMRP	3.9360	IN.
								SCALE	0.0175	

ALPHA 8.000

B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION

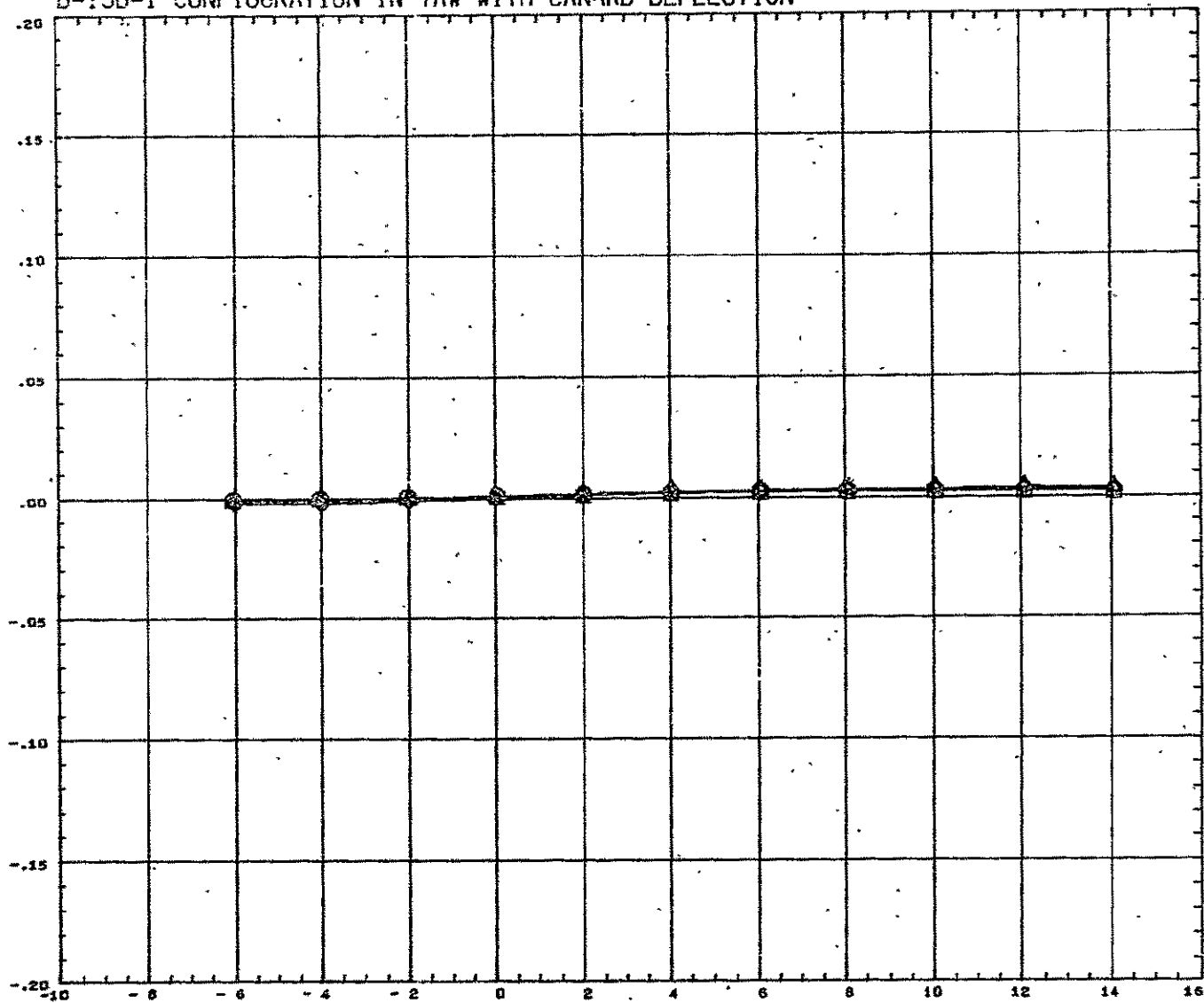


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DC = 0	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	389.3004	sq. IN
(ACV063)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150	IN.
(ACV064)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400	IN.
								XMRP	53.4360	IN.
								YMRP	0.0000	IN.
								ZMRP	3.9360	IN.
								SCALE	0.0175	

ALPHA 16.000

B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION

YAWING MOMENT COEFFICIENT, CLN (STABILITY AXIS)

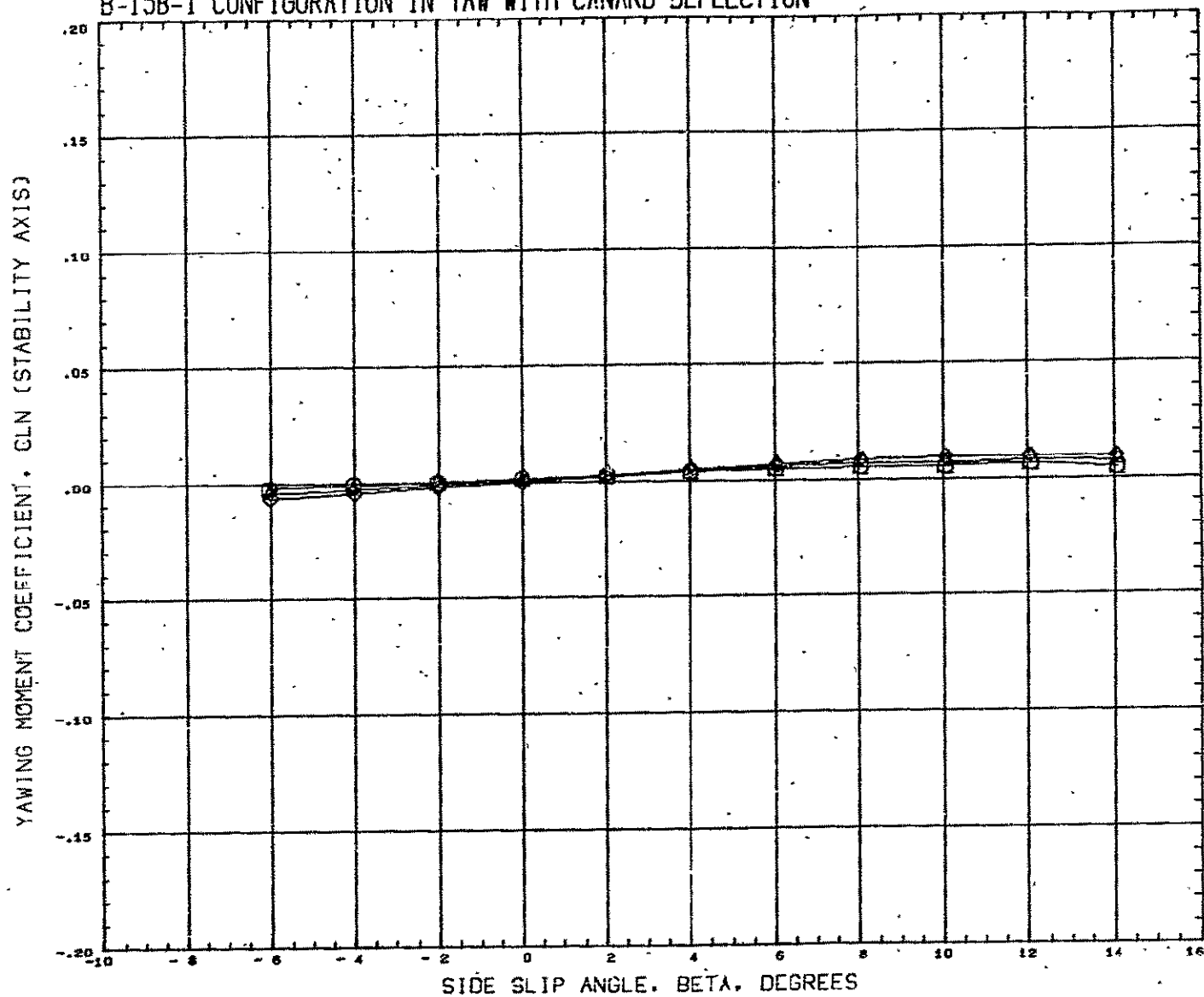


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DC = 0	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV051)	□	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004	59. IN
(ACV053)	△	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150	1N.
(ACV054)	◇	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400	1N.
									XMRP	33.4360	1N.
									YMRP	0.0000	1N.
									ZMRP	3.9580	1N.
									SCALE	0.0175	

ALPHA 0.000

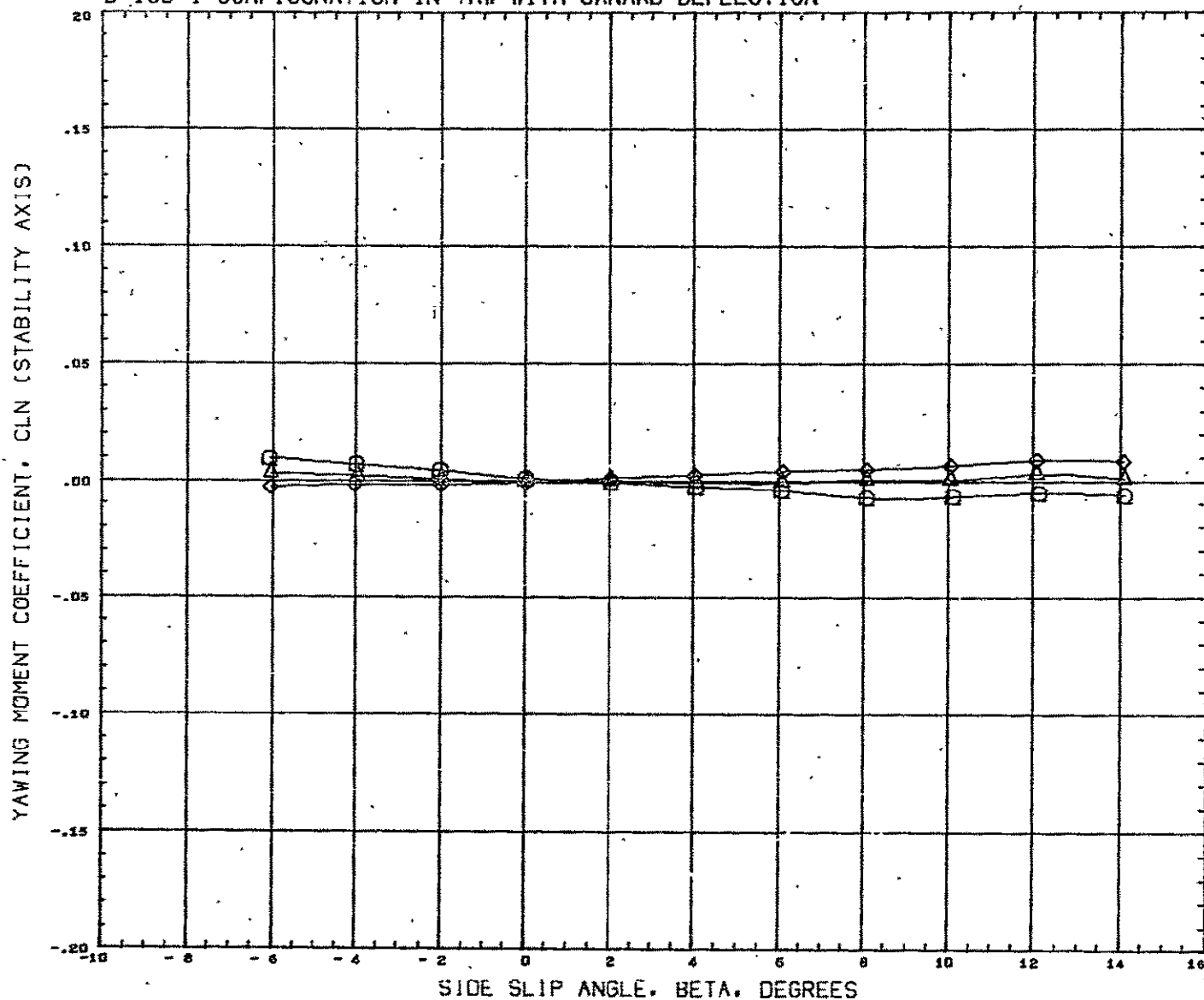
B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV061)	GDLST 587-1 D2IX1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	360.3004 IN.
(ACV063)	GDLST 587-1 B2IX1V7C4W16	DE = 1	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150 IN.
(ACV064)	GDLST 587-1 B2IX1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9360 IN.
								SCALE	0.0175

ALPHA 8.000

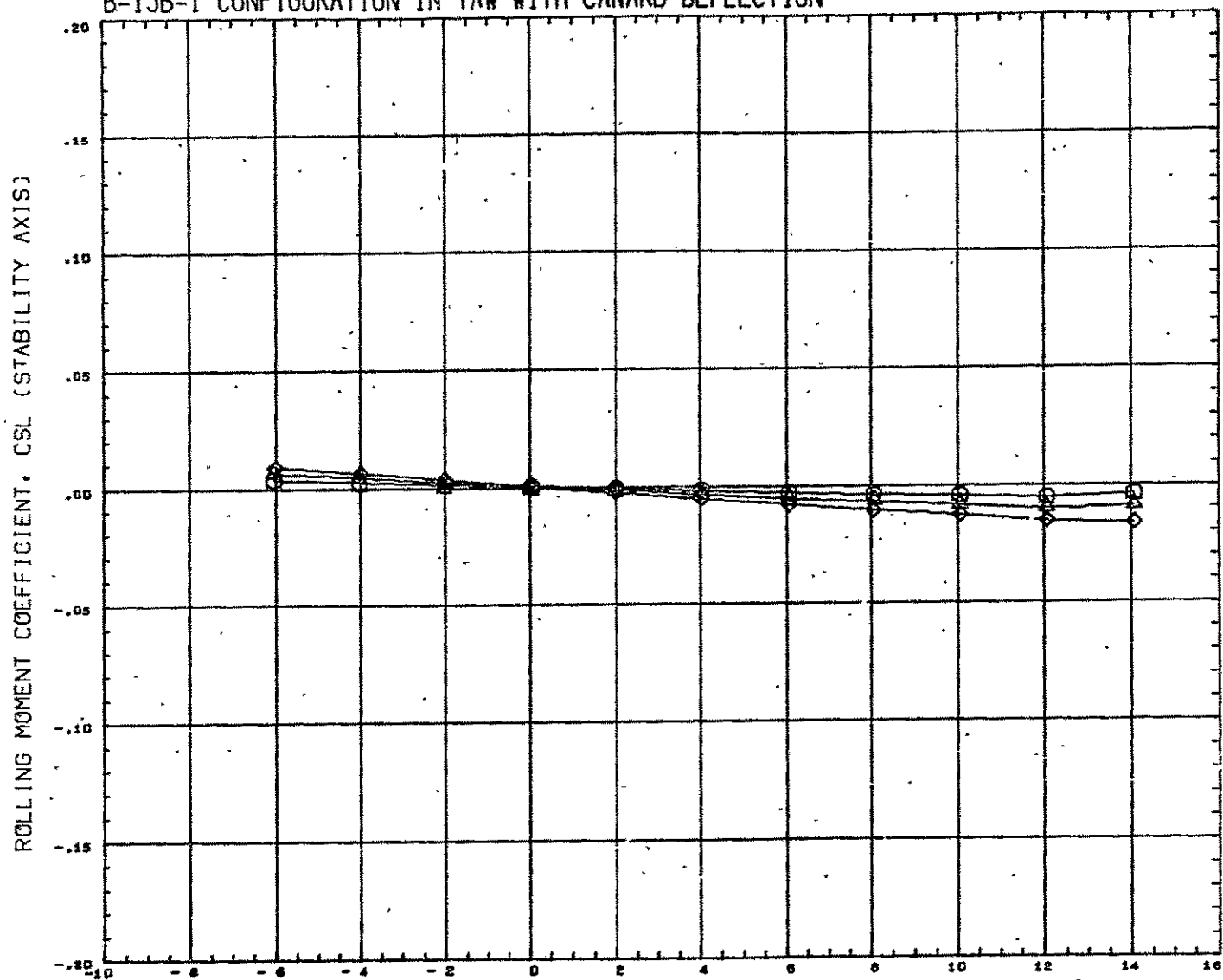
B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DC = 0	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN.
(ACV063)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150 IN.
(ACV064)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400 IN.
								XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

ALPHA 16.000

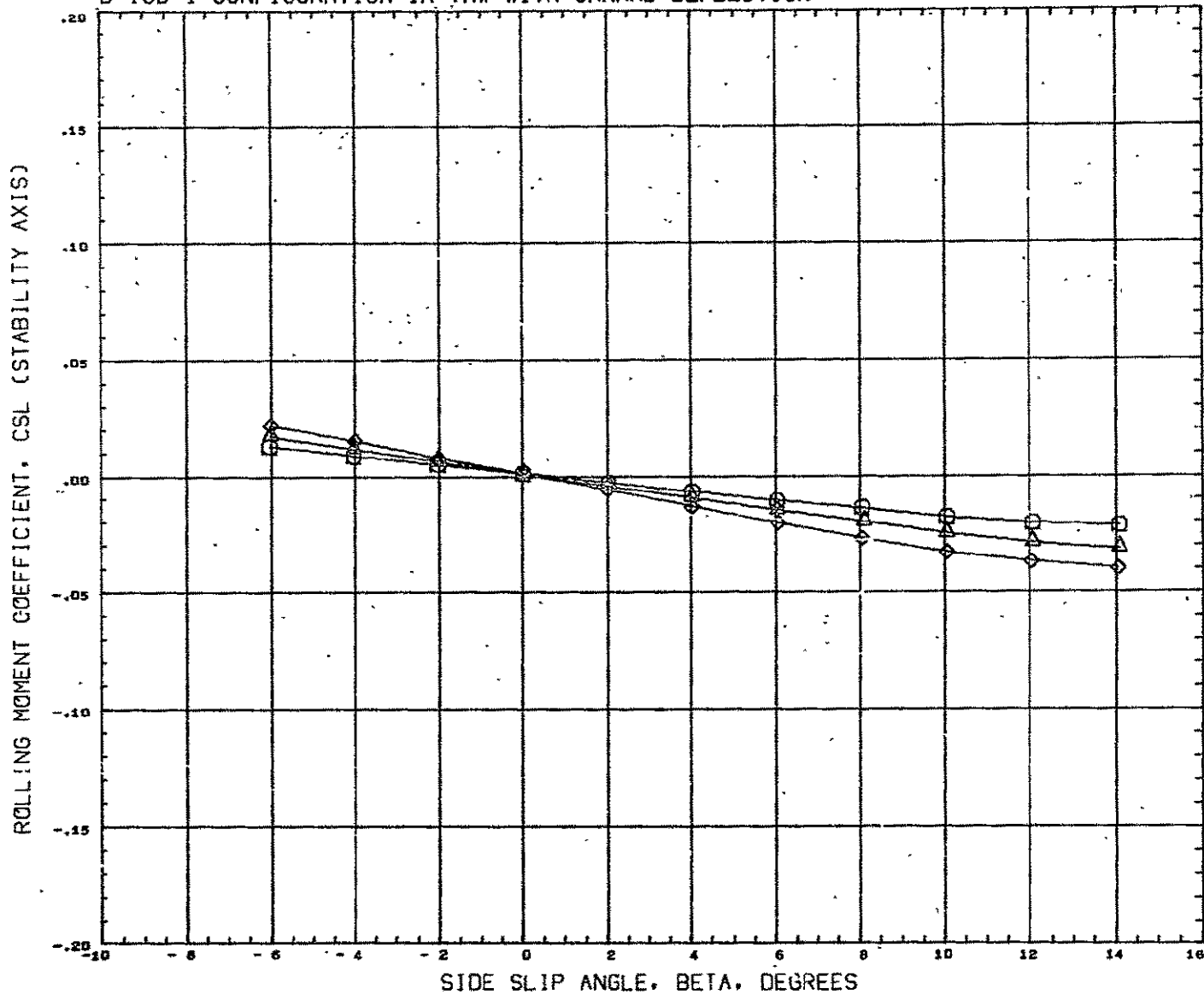
B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.7004	sq. IN
(ACV063)	GDLST 587-1 B21X1V7C4W16	DE = U	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150	IN.
(ACV064)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400	IN.
								XMRP	33.4360	IN.
								YMRP	0.0000	IN.
								ZMRP	3.9380	IN.
								SCALE	0.0175	

ALPHA 0.000

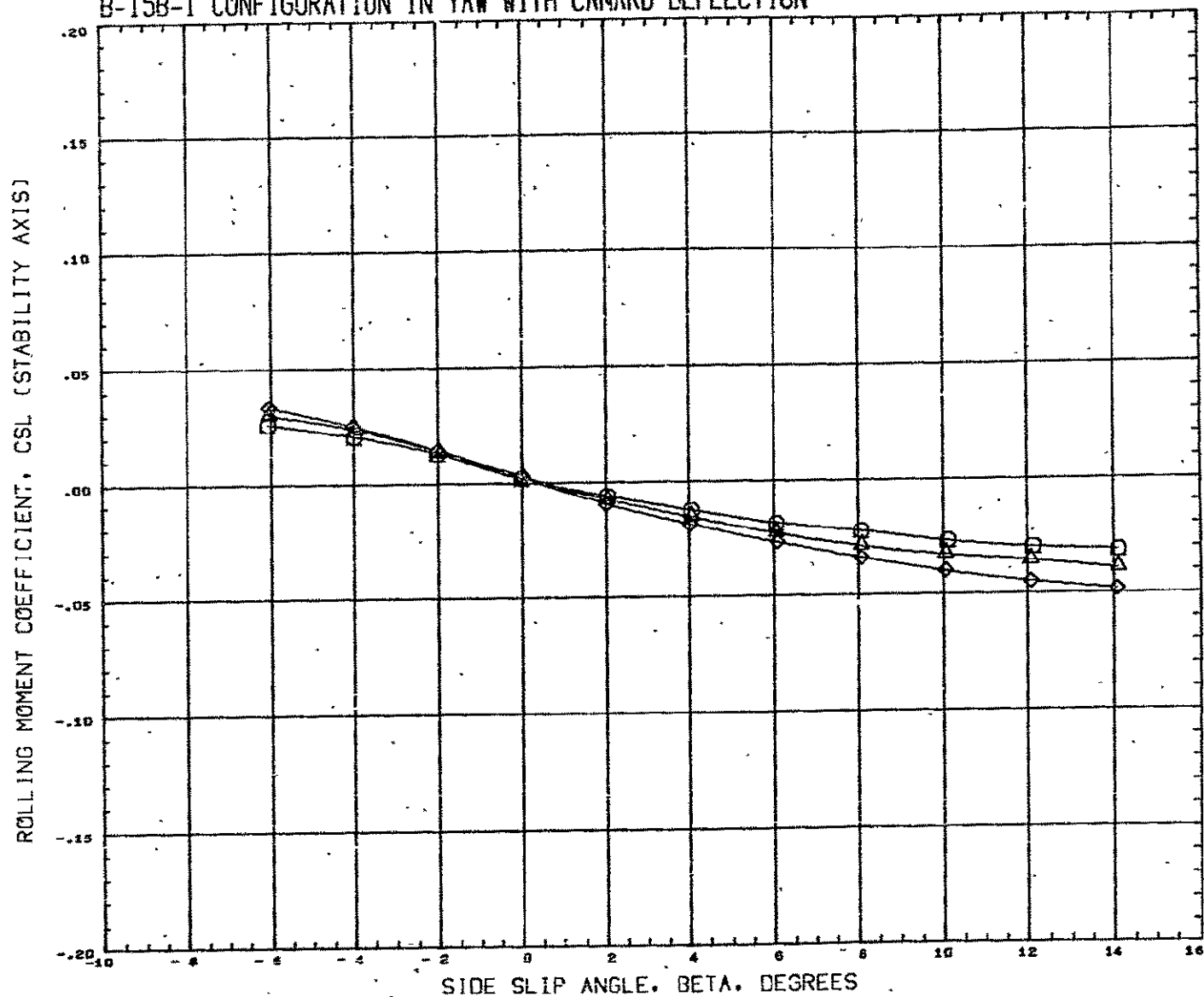
B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ELEVTR	AILROW	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004	SG. IN
(ACV063)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150	IN.
(ACV064)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400	IN.
								XMRP	33.4360	IN.
								YMRP	9.0000	IN.
								ZMRP	3.8360	IN.
								SCALE	0.0175	

ALPHA 6.000

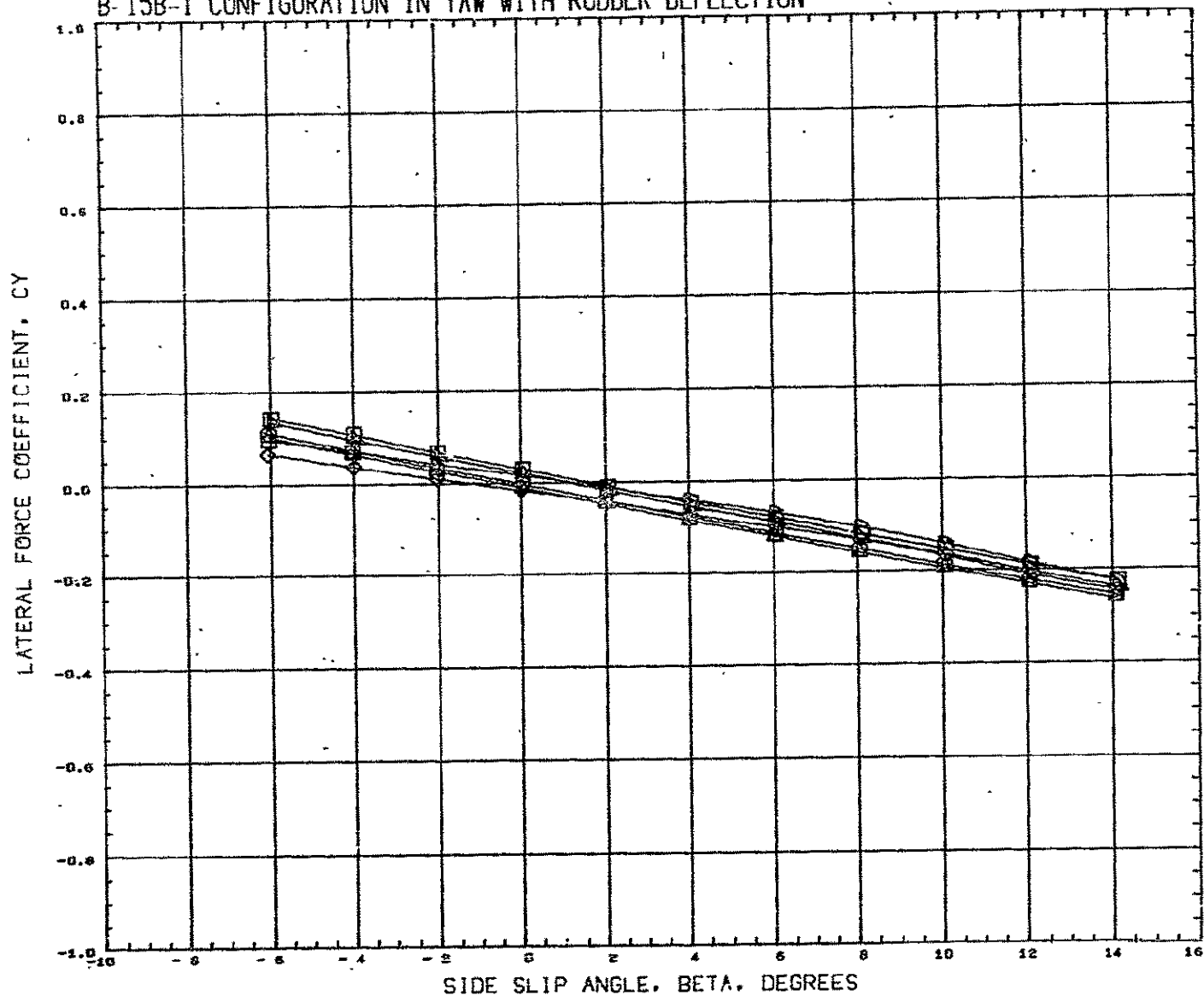
B-15B-1 CONFIGURATION IN YAW WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE = 0	DC = 0	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV063)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150 IN.
(ACV064)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	50.4400 IN.
								XMRP	35.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

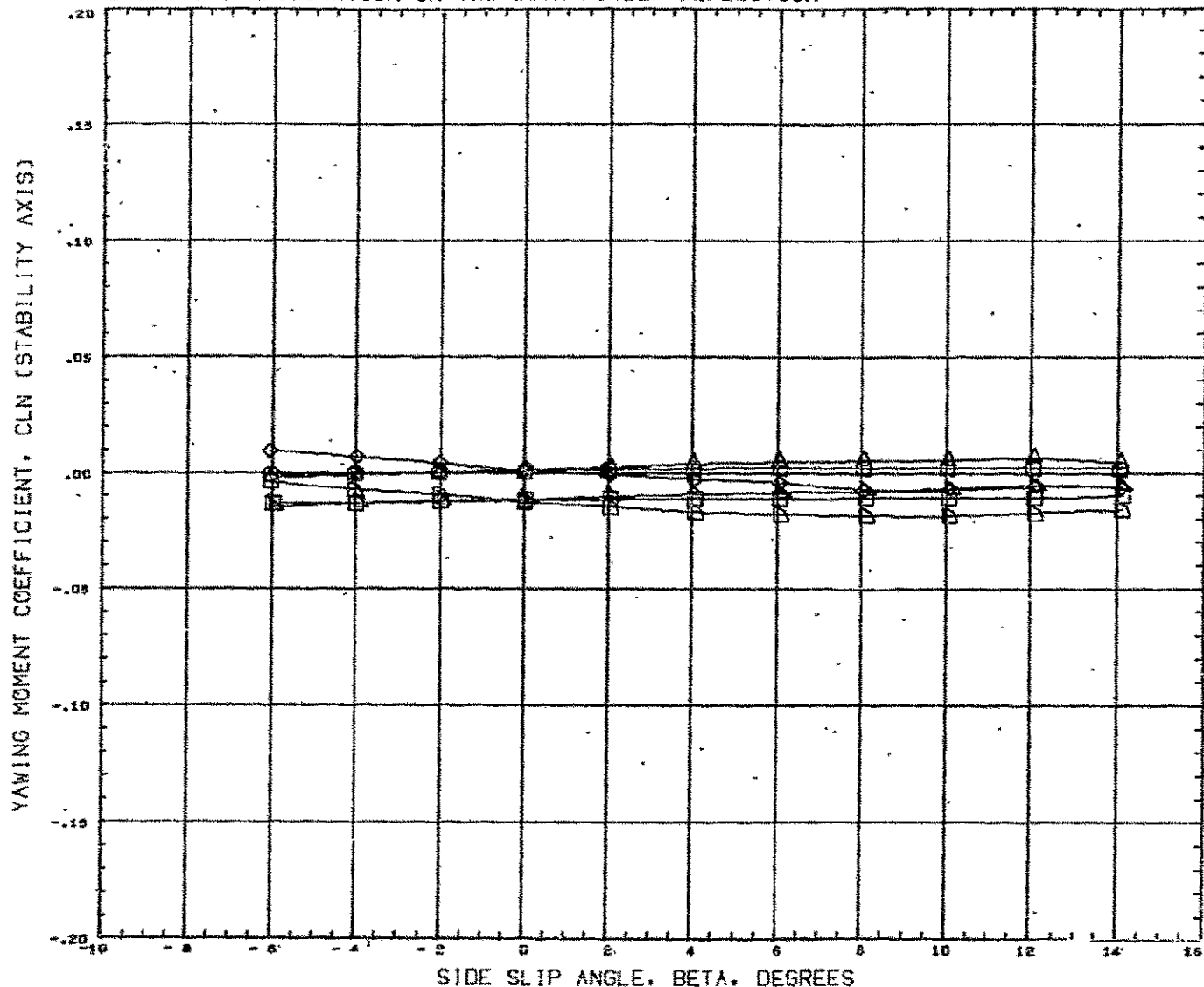
ALPHA 16.00

B-15B-1 CONFIGURATION IN YAW WITH RUDDER DEFLECTION



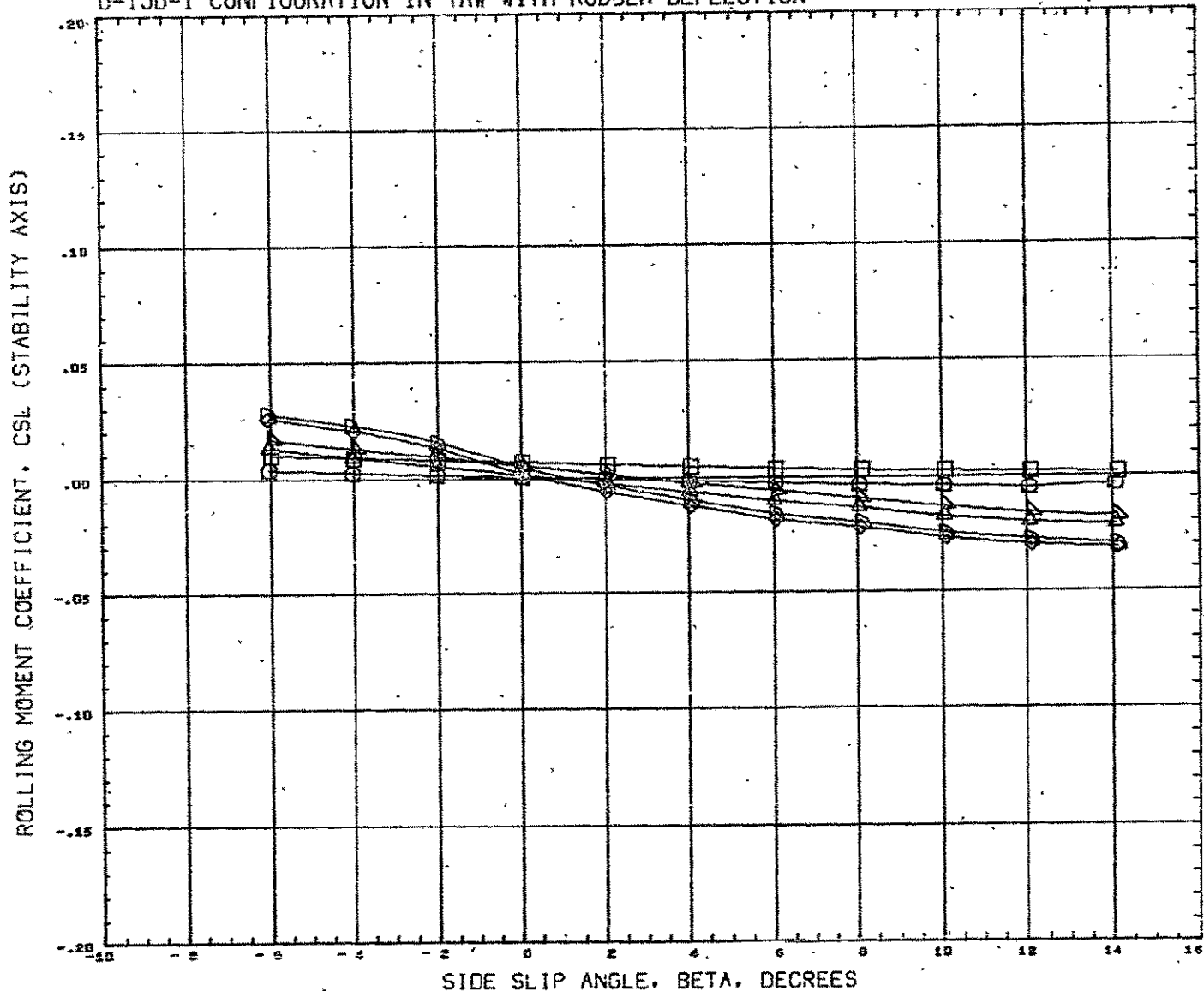
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ALPHA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ECV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004	sq. in
(FCV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	8.000	0.000	0.000	0.000	LREF	15.2150	in.
(GCV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	16.000	0.000	0.000	0.000	BREF	30.4400	in.
(ECV062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	10.000	0.000	XMRP	33.4360	in.
(FCV062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	8.000	0.000	10.000	0.000	YMRP	0.0000	in.
(GCV062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	16.000	0.000	10.000	0.000	ZMRP	3.9380	in.
								SCALE	0.0175	
MACH 0.201										

B-15B-1 CONFIGURATION IN YAW WITH RUDDER DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ALPHA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ECV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(FCV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	8.000	0.000	0.000	0.000	LREF	15.2150 IN.
(CCV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	16.000	0.000	0.000	0.000	BREF	30.4400 IN.
(ECV062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	10.000	0.000	XMRP	35.4360 IN.
(FCV062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	8.000	0.000	10.000	0.000	YMRP	0.0000 IN.
(CCV062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	16.000	0.000	10.000	0.000	ZMRP	3.9380 IN.
								SCALE	0.3175
MACH 0.201									

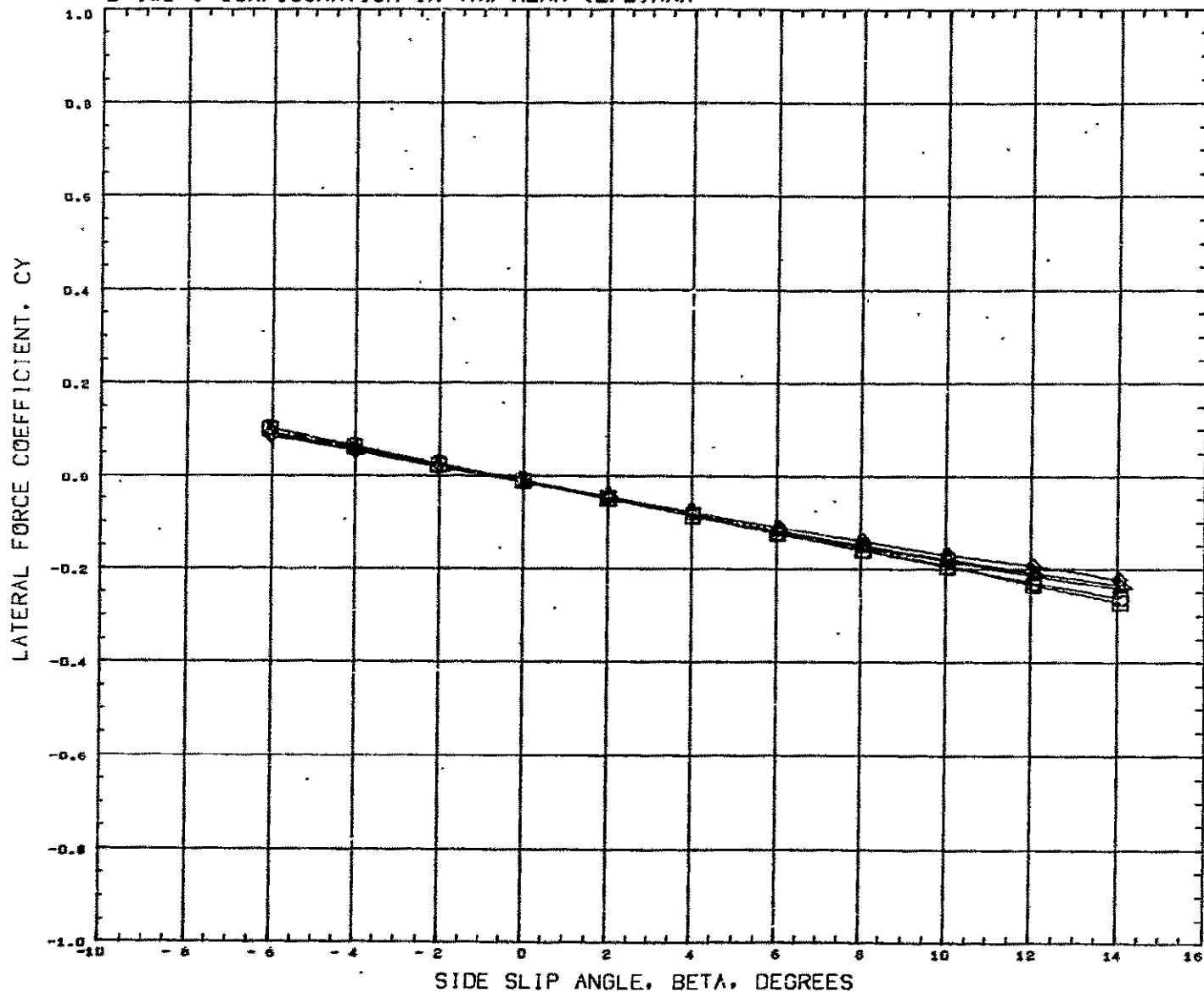
B-15B-1 CONFIGURATION IN YAW WITH RUDDER DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ALPHA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ECY061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(FCY061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	8.000	0.000	0.000	0.000	LREF	15.2150 IN.
(GCY061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	16.000	0.000	0.000	0.000	SREF	30.4400 IN.
(ECY062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	10.000	0.000	XMRP	33.4360 IN.
(FCY062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	8.000	0.000	10.000	0.000	YMRP	0.0000 IN.
(GCY062)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	16.000	0.000	10.000	0.000	ZMRP	5.9380 IN.
								SCALE	0.0175

MACH 0.201

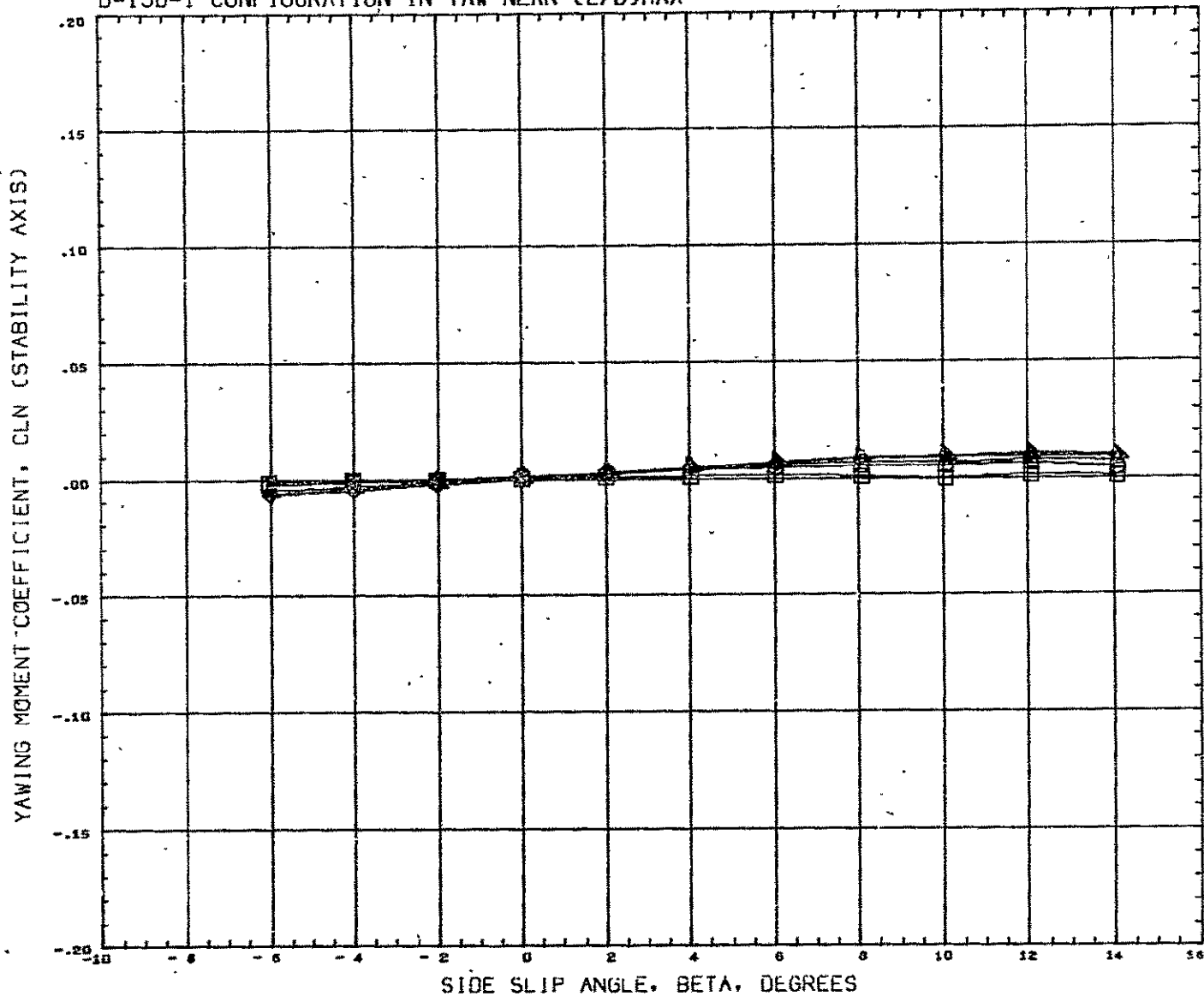
B-15B-1 CONFIGURATION IN YAW NEAR (L/D)MAX



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(CCV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(CCV063)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150 IN.
(CCV064)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400 IN.
(CCV065)	GDLST 587-1 B21X1V7C4W16	DE = -10	DC = -10	-10.000	0.000	0.000	-10.000	XNRP	33.4360 IN.
(CCV066)	GDLST 587-1 B21X1V7C4W16	DE = 15	DC = 5	5.000	0.000	0.000	15.000	YHRP	0.0000 IN.
								ZHRP	3.9380 IN.
								SCALE	0.0175

ALPHA 8.000

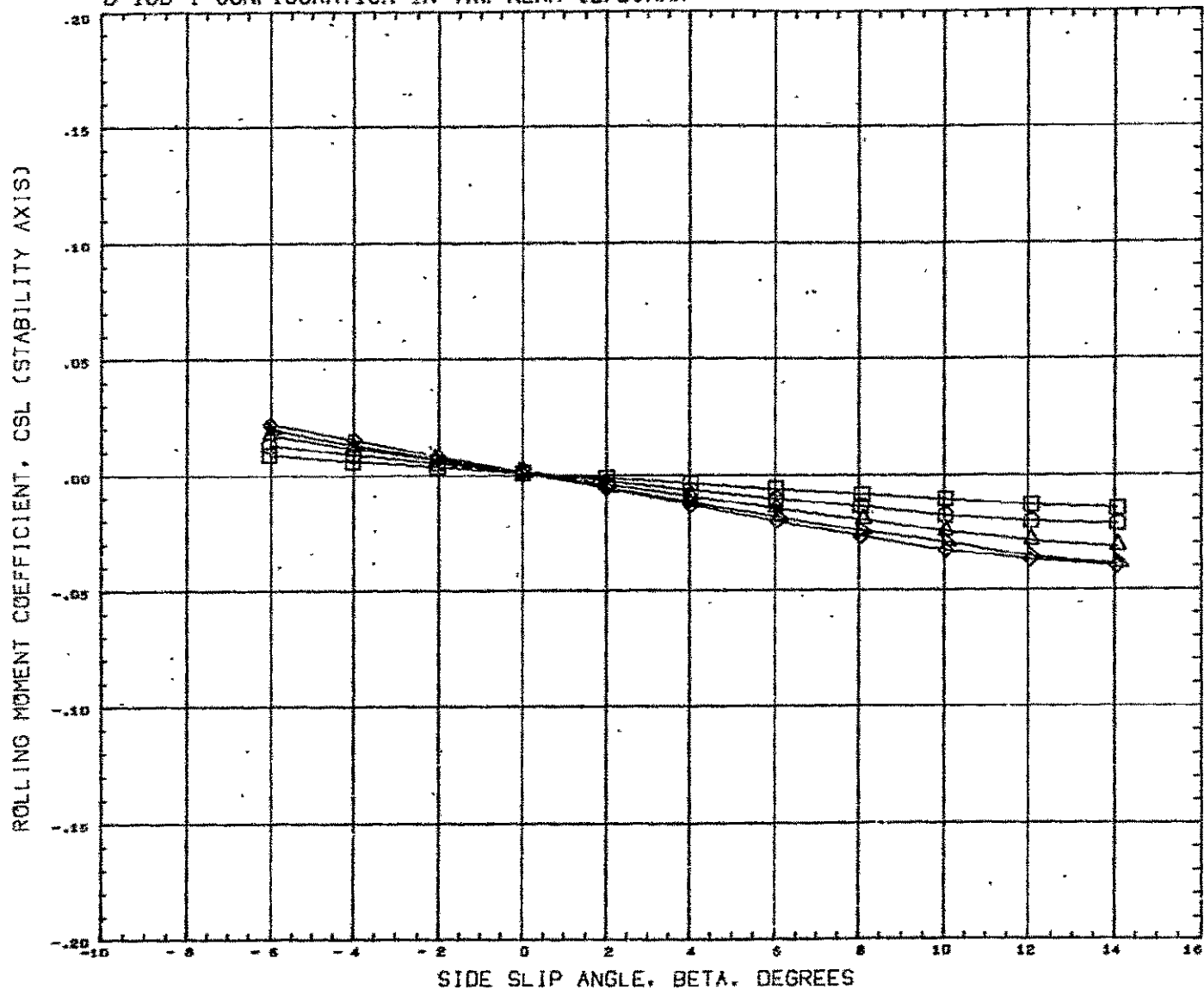
B-15B-1 CONFIGURATION IN YAW NEAR (L/D)MAX



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(CCV061)	GDLST 507-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF	360.3004 SQ. IN
(CCV063)	GDLST 507-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150 IN.
(CCV064)	GDLST 507-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BREF	30.4400 IN.
(CCV065)	GDLST 507-1 B21X1V7C4W16	DE = -10	DC = -10	-10.000	0.000	0.000	-10.000	XMRP	33.4360 IN.
(CCV066)	GDLST 507-1 B21X1V7C4W16	DE = 15	DC = 3	3.000	0.000	0.000	15.000	YMRP	0.0000 IN.
								ZMRP	3.9360 IN.
								SCALE	0.0175

ALPHA 8.000

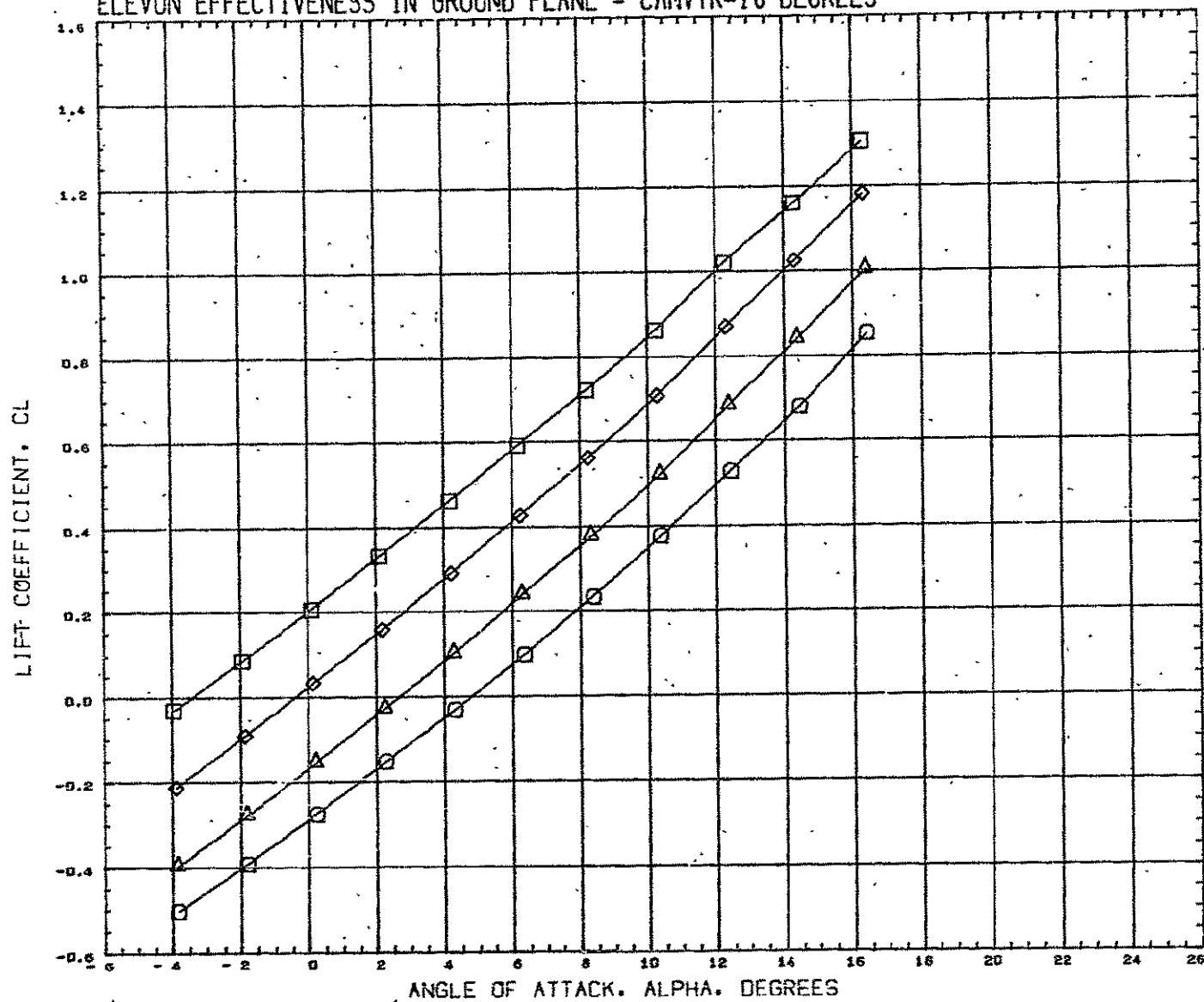
B-15B-1 CONFIGURATION IN YAW NEAR (L/D)MAX



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	DC	ELEVTR	AILRON	RUDDER	CANVTX	REFERENCE INFORMATION
(CCV061)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 0	0.000	0.000	0.000	0.000	SREF 380.3004 sq. IN
(CCV063)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 10	0.000	0.000	0.000	10.000	LRREF 15.2150 IN.
(CCV064)	GDLST 587-1 B21X1V7C4W16	DE = 0	DC = 20	0.000	0.000	0.000	20.000	BRREF 30.4400 IN.
(CCV065)	GDLST 587-1 B21X1V7C4W16	DE = -10	DC = -10	-10.000	0.000	0.000	-10.000	XMRP 55.4360 IN.
(CCV066)	GDLST 587-1 B21X1V7C4W16	DE = 15	DC = 3	3.000	0.000	0.000	15.000	YMRP 0.0000 IN.
								ZMRP 3.9380 IN.
								SCALE 0.0175

ALPHA = 8.500

ELEVON EFFECTIVENESS IN GROUND PLANE - CANVTR=10 DEGREES

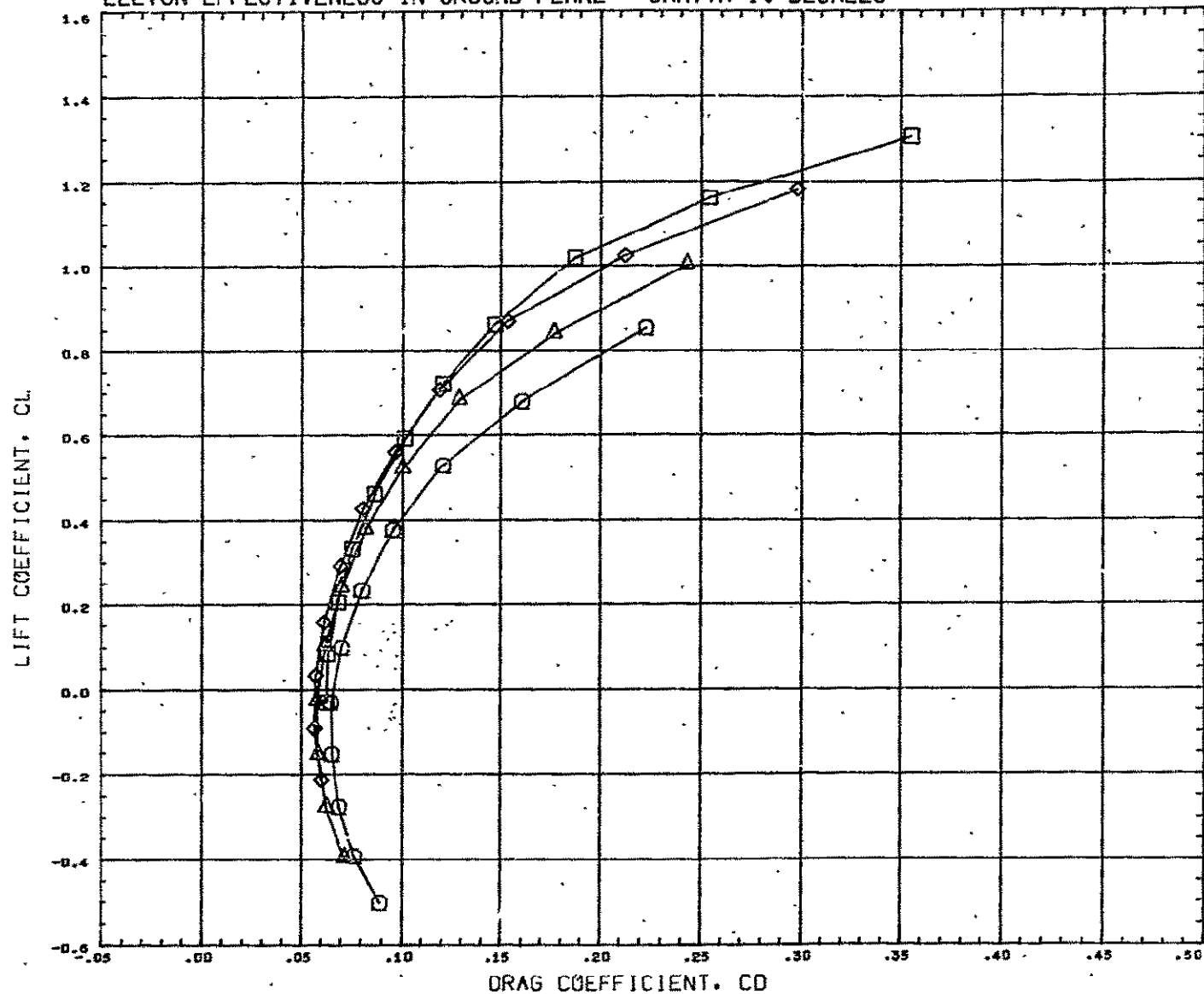


SYMBOL	ELEVTR	PARAMETRIC VALUES			
○	-20.000	BETA	0.000	MACH	0.201
△	-10.000	RUDDER	0.000	CANVTR	10.000
◇	0.000	CANCON	0.000	AILCON	0.000
□	10.000				

REFERENCE INFORMATION		
SREF	380.3004	SG. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE HVV

ELEVON EFFECTIVENESS IN GROUND PLANE - CANVTR=10 DEGREES

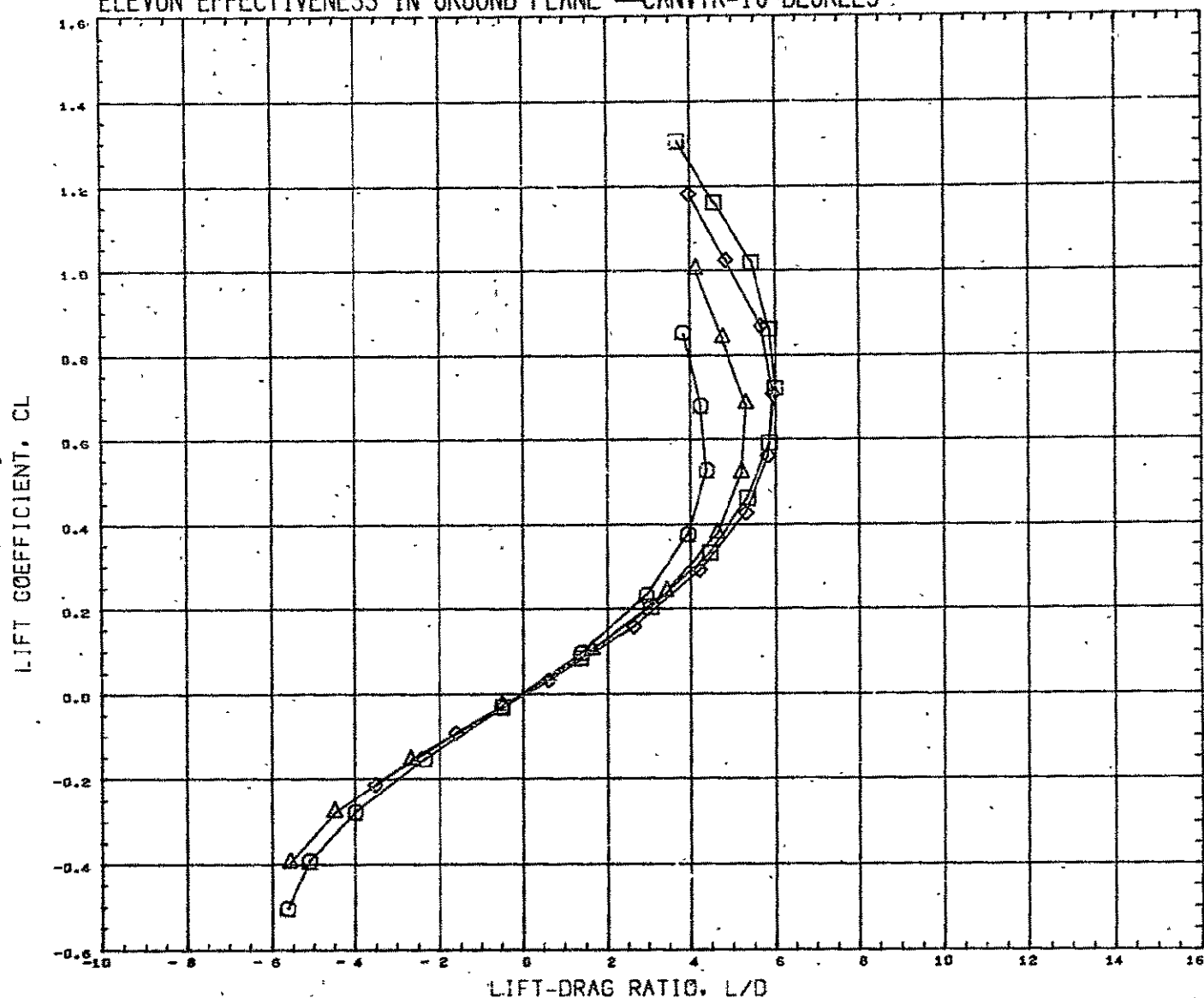


SYMBOL	ELEVTR	PARAMETRIC VALUES			
○	- 20.000	BETA	0.000	MACH	0.201
△	- 10.000	RUDDER	0.000	CANVTR	10.000
◇	0.000	CANRON	0.000	AIRON	0.000
□	10.000				

REFERENCE INFORMATION		
SREF	380.3004	Sq. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9300	IN.
SCALE	0.0175	

DATA HIS). CODE MVV

ELEVON EFFECTIVENESS IN GROUND PLANE — CANVTR=10 DEGREES

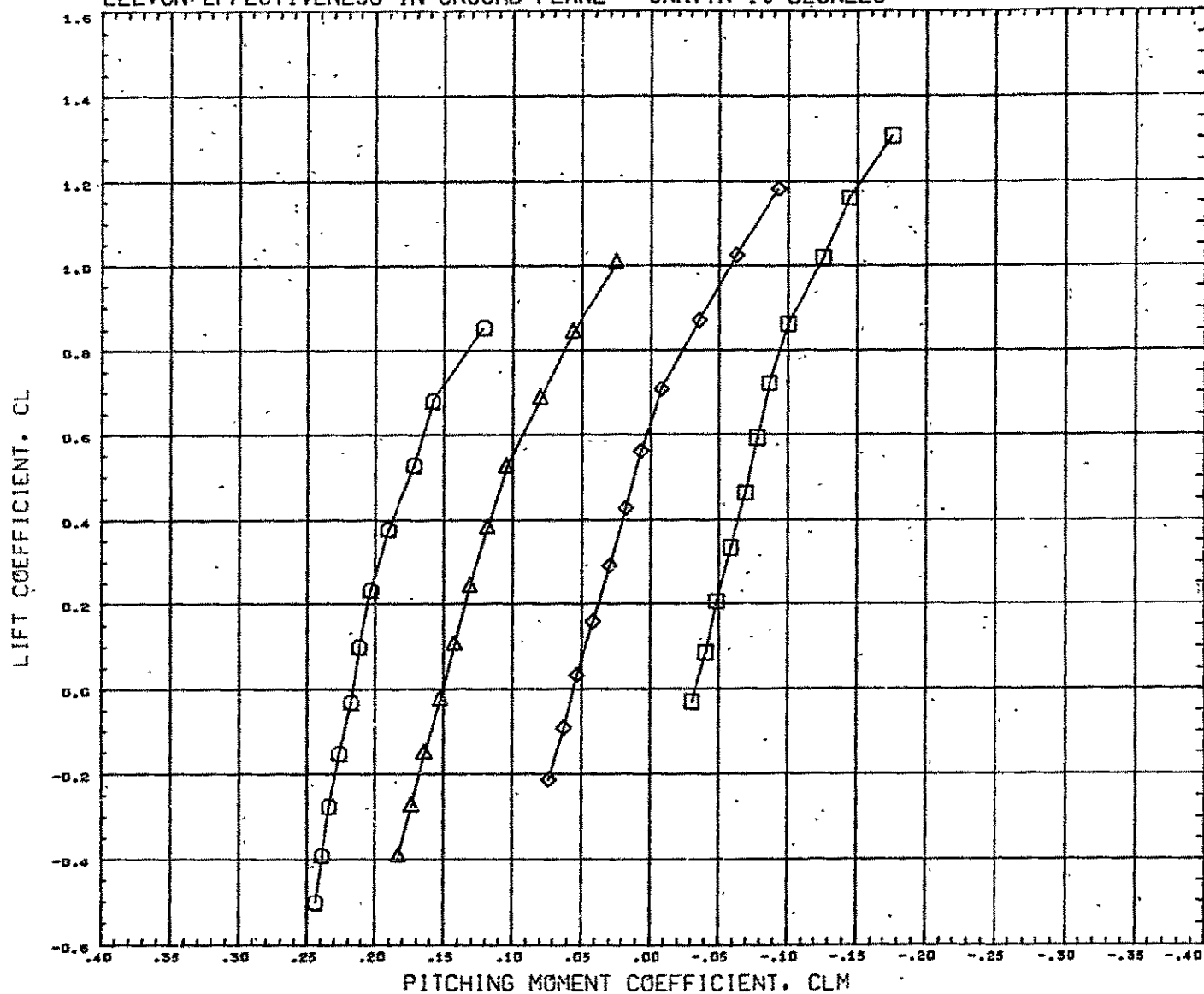


SYMBOL	ELEVTR	PARAMETRIC VALUES			
○	-20.000	BETA	0.000	MACH	0.201
△	-10.000	RUDDER	0.000	CANVTR	10.000
◇	0.000	CANRON	0.000	AILRON	0.000
□	10.000				

REFERENCE INFORMATION		
SREF	380.3004	sq. in
LREF	15.2150	in.
BREF	30.4400	in.
XMRP	33.4360	in.
YMRP	0.0000	in.
ZMRP	3.9360	in.
SCALE	0.0175	

DATA HIST. CODE MVV

ELEVON EFFECTIVENESS IN GROUND PLANE - CANVTR=10 DEGREES

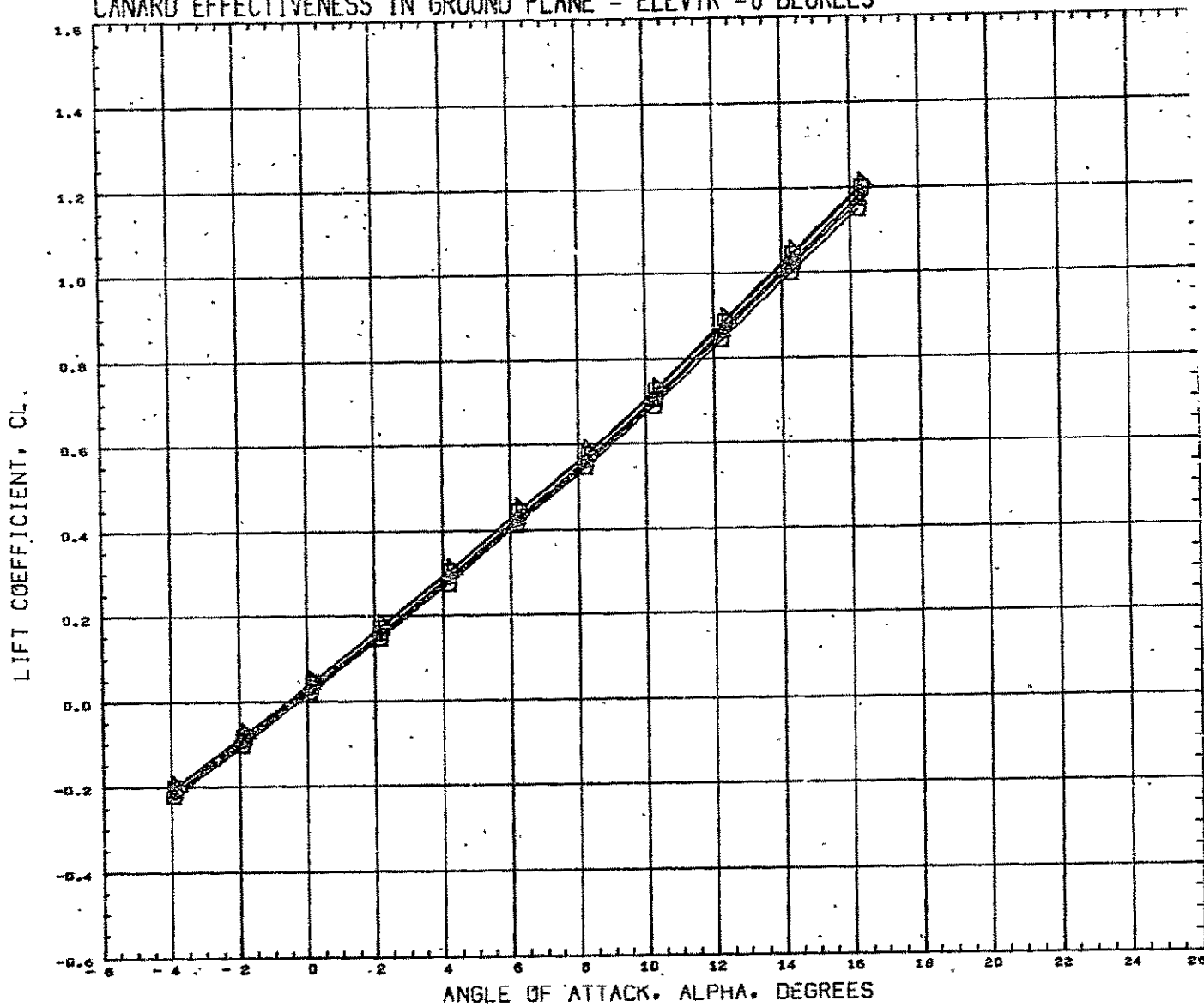


SYMBOL	ELEVTR	PARAMETRIC VALUES			
○	- 20.000	BETA	0.000	MACH	0.201
△	- 10.000	RUDDER	0.000	CANVTR	10.000
◇	0.000	CANRON	0.000	AILRON	0.000
□	10.000				

REFERENCE INFORMATION		
SREF	300.3004	sq. in.
LREF	15.2150	in.
BREF	30.4400	in.
XMRP	33.4360	in.
YMRP	0.0000	in.
ZMRP	3.9380	in.
SCALE	0.0175	

DATA HIST. CODE HVV

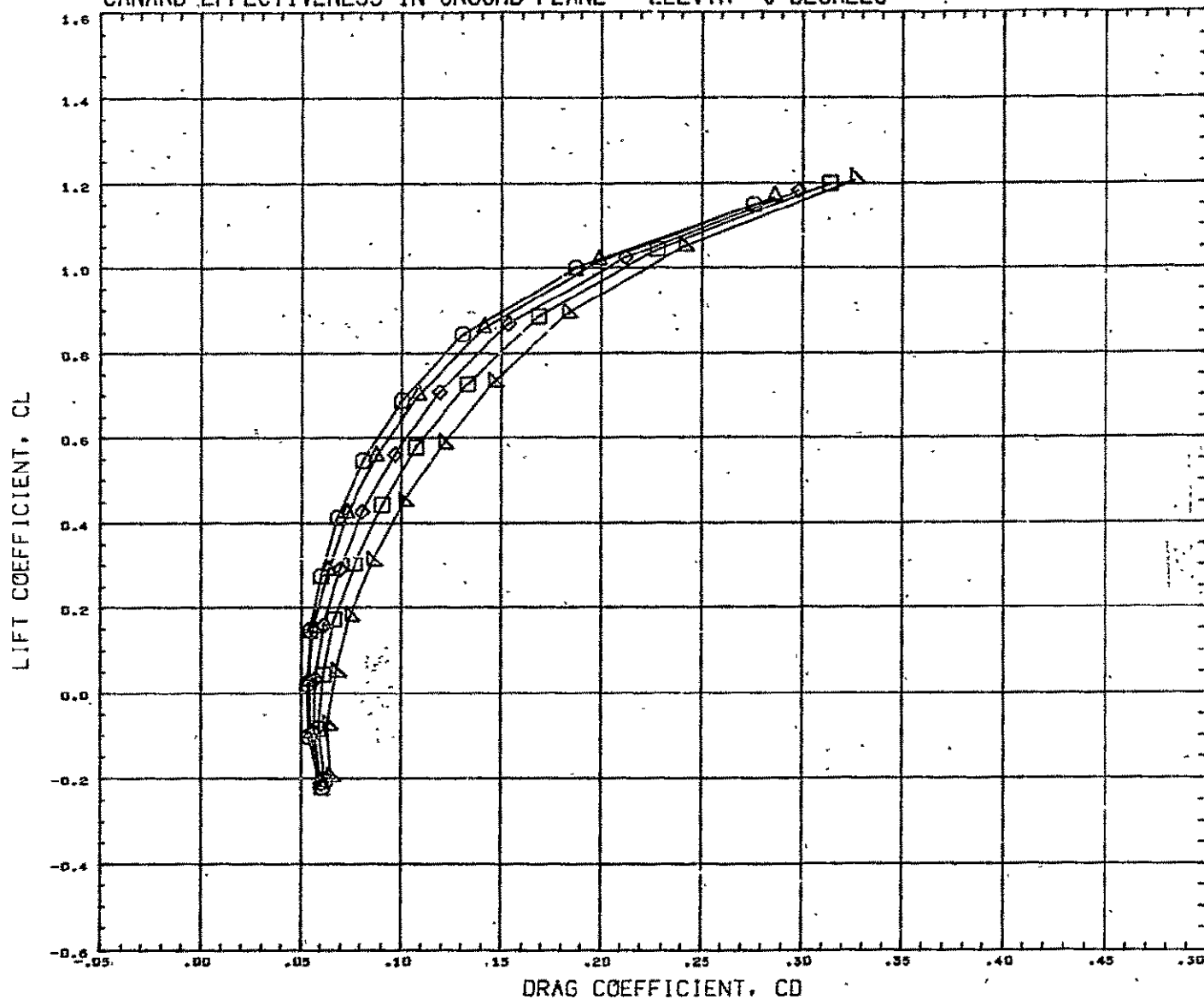
CANARD EFFECTIVENESS IN GROUND PLANE - ELEVTR = 0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANYTR	REFERENCE INFORMATION
(ACV602)	6DLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.000	SREF 380.300% SQ. IN
(ACV603)	6DLST 587-1 B21X1V7C4W16G3 + GP DC = 5	0.000	0.000	0.000	5.000	LREF 15.2150 IN.
(ACV604)	6DLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	0.000	10.000	BREF 30.4400 IN.
(ACV605)	6DLST 587-1 B21X1V7C4W16G3 + GP DC = 15	0.000	0.000	0.000	15.000	XMRP 33.4360 IN.
(ACV606)	6DLST 587-1 B21X1V7C4W16G3 + GP DC = 20	0.000	0.000	0.000	20.000	YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

ELEVTR 0.000

CANARD EFFECTIVENESS IN GROUND PLANE - ELEVTR = 0 DEGREES



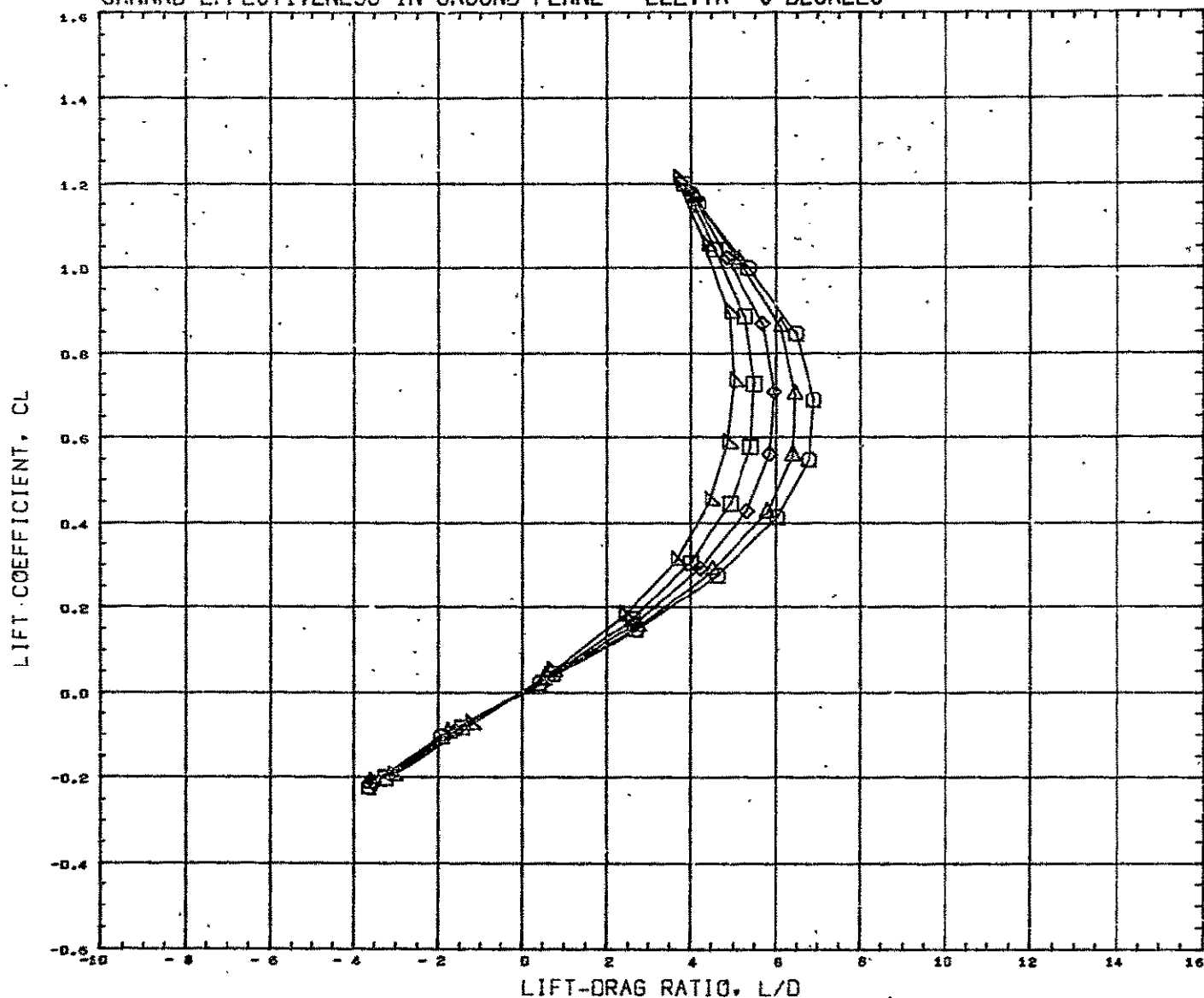
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ACVG02)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.000	SREF 180.3004 SQ. IN.
(ACVG03)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 5	0.000	0.000	0.000	5.000	LREF 15.2150 IN.
(ACVG01)	GDLST 587-1 B21X1V7C4W16G3 + C° DC = 10	0.000	0.000	0.000	10.000	SREF 30.4400 IN.
(BCVG05)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 15	0.000	0.000	0.000	15.000	XNRP 33.4360 IN.
(ACVG04)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 20	0.000	0.000	0.000	20.000	YNRP 0.0000 IN.
						ZNRP 3.9380 IN.
						SCALE 0.0175

ELEVTR = 0.000

REMARKS

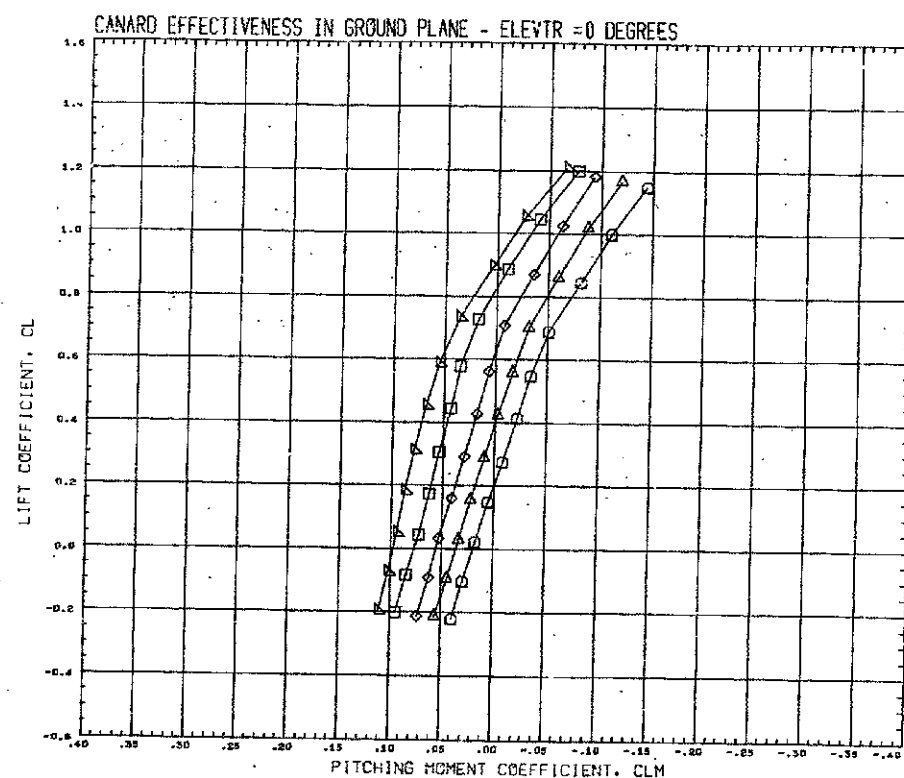
ELEVTR

CANARD EFFECTIVENESS IN GROUND PLANE - ELEVTR = 0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ACVGD2)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.000	SREF 360.3004 SQ. IN
(ACVGD3)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 5	0.000	0.000	0.000	5.000	LREF 15.2150 IN.
(BCVGD1)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	0.000	10.000	BREF 30.4400 IN.
(BCVGD5)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 15	0.000	0.000	0.000	15.000	XMRP 33.4360 IN.
(ACVGD4)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 20	0.000	0.000	0.000	20.000	YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

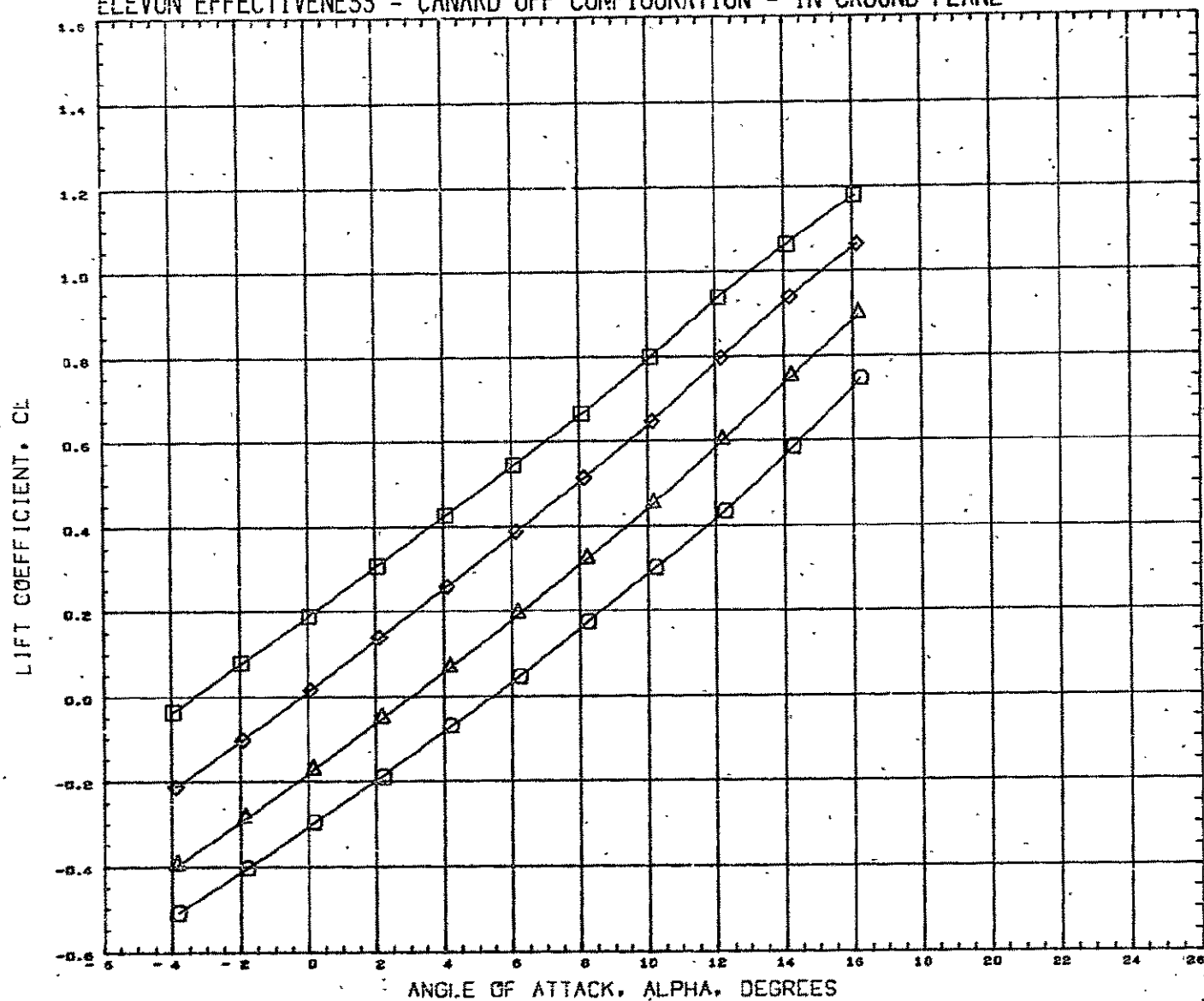
ELEVTR 0.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DATA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ACV002)	COLST 587-1 B21X1V7C+M16C3 + 6P DC = 0	0.000	0.000	0.000	0.000	SREF 300.0004 04. IN
(ACV003)	COLST 587-1 B21X1V7C+M16C3 + 6P DC = 5	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(BCV001)	COLST 587-1 B21X1V7C+M16C3 + 6P DC = 10	0.000	0.000	0.000	10.000	SREF 30.4400 IN.
(BCV003)	COLST 587-1 B21X1V7C+M16C3 + 6P DC = 15	0.000	0.000	0.000	15.000	YREF 35.4350 IN.
(ACV004)	COLST 587-1 B21X1V7C+M16C3 + 6P DC = 20	0.000	0.000	0.000	20.000	YREF 40.0000 IN.
						ZREF 5.0000 IN.
						SCALE 0.0175

ELEVTR 0.000

ELEVON EFFECTIVENESS - CANARD OFF CONFIGURATION - IN GROUND PLANE



SYMBOL	ELEVTR	PARAMETRIC VALUES			
○	-20.000	BETA	0.000	MACH	0.201
△	-10.000	RUDDER	0.000	AILRON	0.000
◇	0.000				
□	10.000				

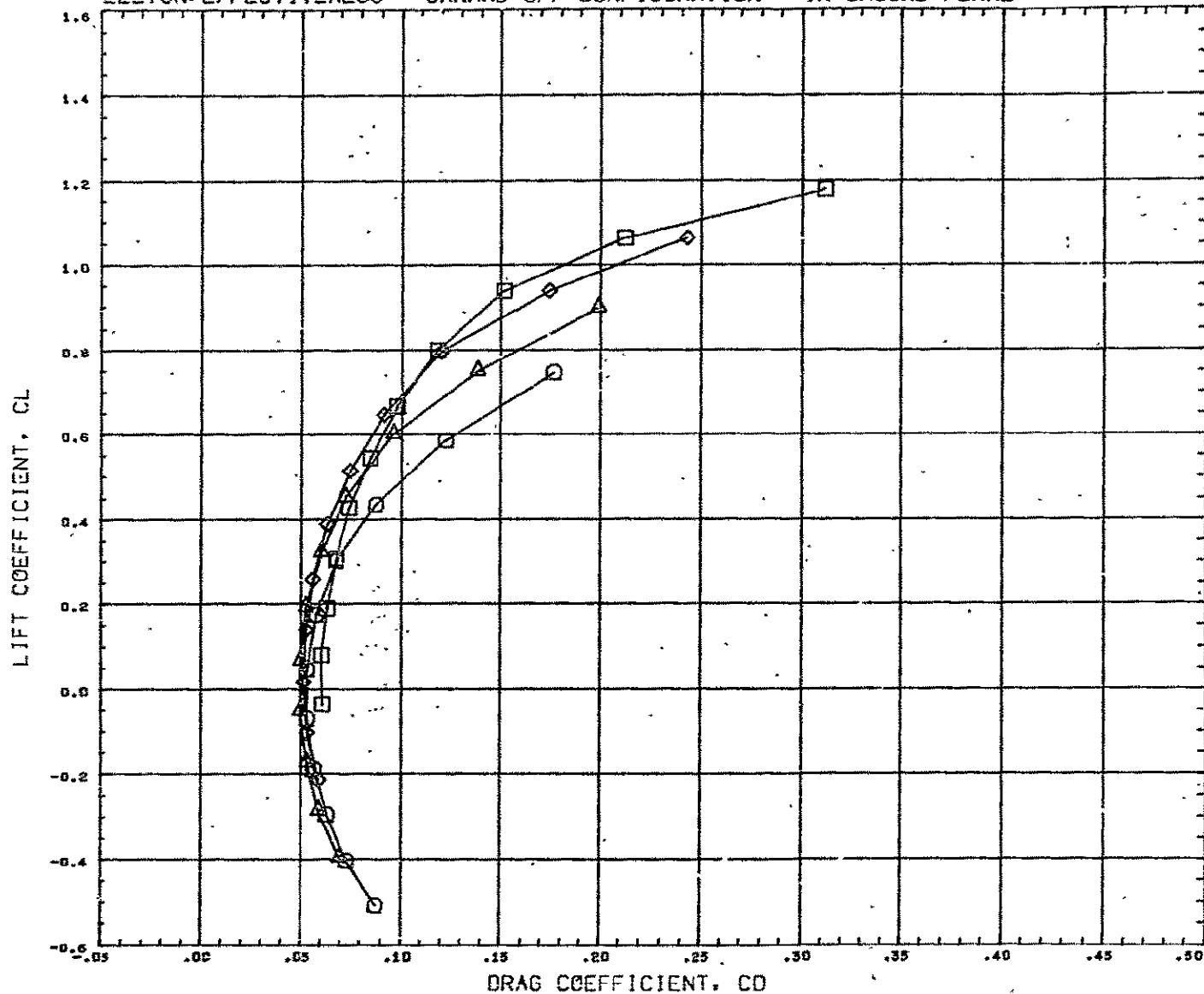
REFERENCE INFORMATION		
SREF	380.3004	SR. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	5.9380	IN.
SCALE	0.0175	

DATA HIST. CODE NVV

GDLST 587-1 B21X1V7W:6G3 + GP

(ACVG06) 24 JUL 71 P/3E 171

ELEVON EFFECTIVENESS - CANARD OFF CONFIGURATION - IN GROUND PLANE



SYMBOL	ELEVTR	PARAMETRIC VALUES			
○	- 20.000	BETA	0.000	MACH	0.201
△	- 10.000	RUDDER	0.000	AILRON	0.000
◇	0.000				
□	10.000				

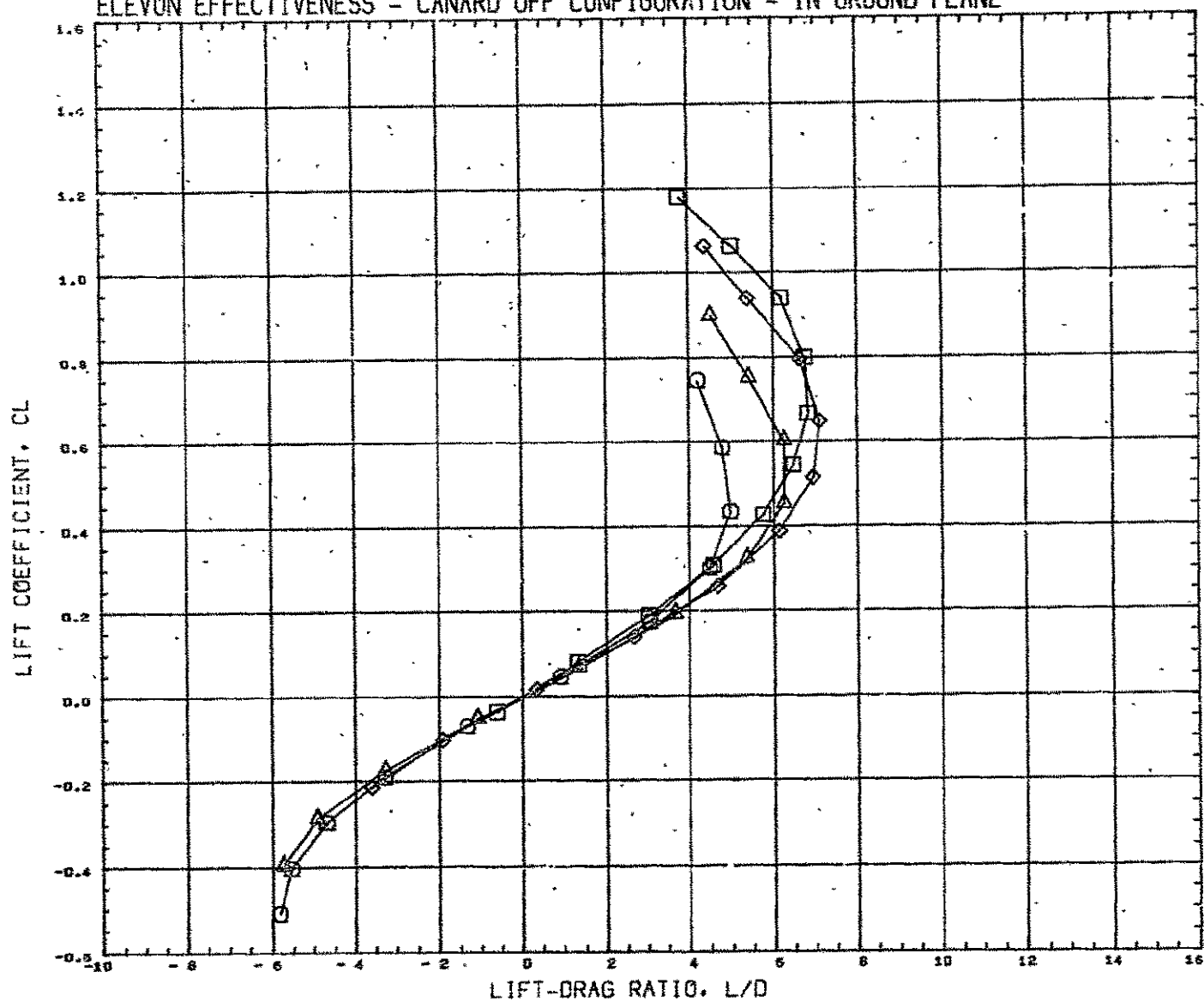
REFERENCE INFORMATION		
SREF	380.3004	sq. in
LREF	15.2150	in.
BREF	30.4400	in.
XMRP	33.4360	in.
YMRP	0.0000	in.
ZMRP	3.9380	in.
SCALE	0.0175	

DATA HIST. CODE MVV

GDLST 587-1 B21X1V7W1663 + GP

(ACVG06) 24 JUL 71 PAGE 172

ELEVON EFFECTIVENESS - CANARD OFF CONFIGURATION - IN GROUND PLANE



SYMBOL	ELEVTR	PARAMETRIC VALUES			
\circ	-20.000	BETA	0.000	MACH	0.201
\triangle	-10.000	RUDDER	0.000	AILRON	0.000
\diamond	0.000				
\square	10.000				

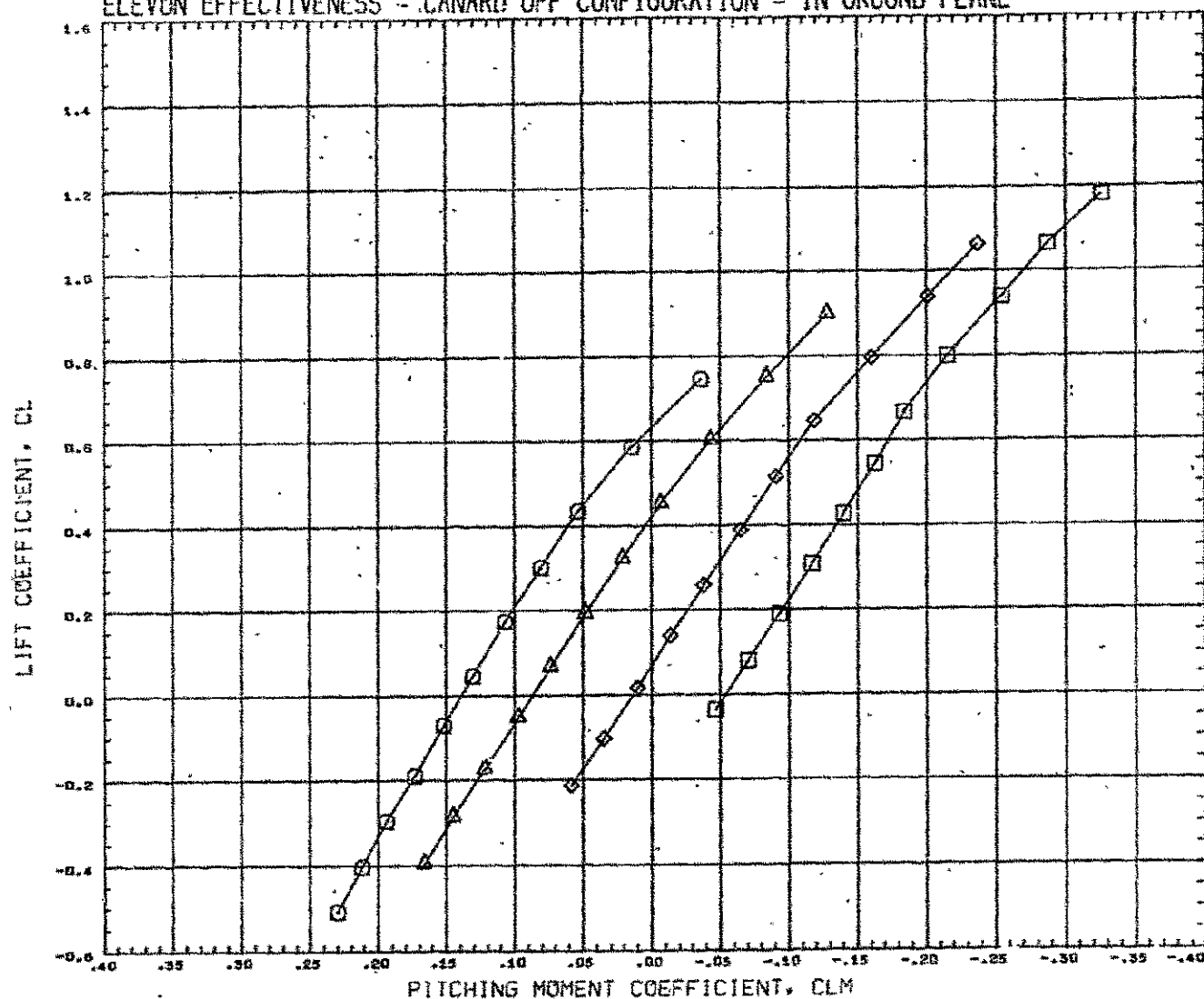
DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	300.3004	SQ. IN.
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-1 B21X1V7W16G3 + GP

(ACV606) 24 JUL 71 PAGE 173

ELEVON EFFECTIVENESS - CANARD OFF CONFIGURATION - IN GROUND PLANE



SYMBOL	ELEVTR	PARAMETRIC VALUES			
○	- 20.000	BETA	0.000	MACH	0.201
△	- 10.000	RUDDER	0.000	AILRON	0.000
◇	0.000				
□	10.000				

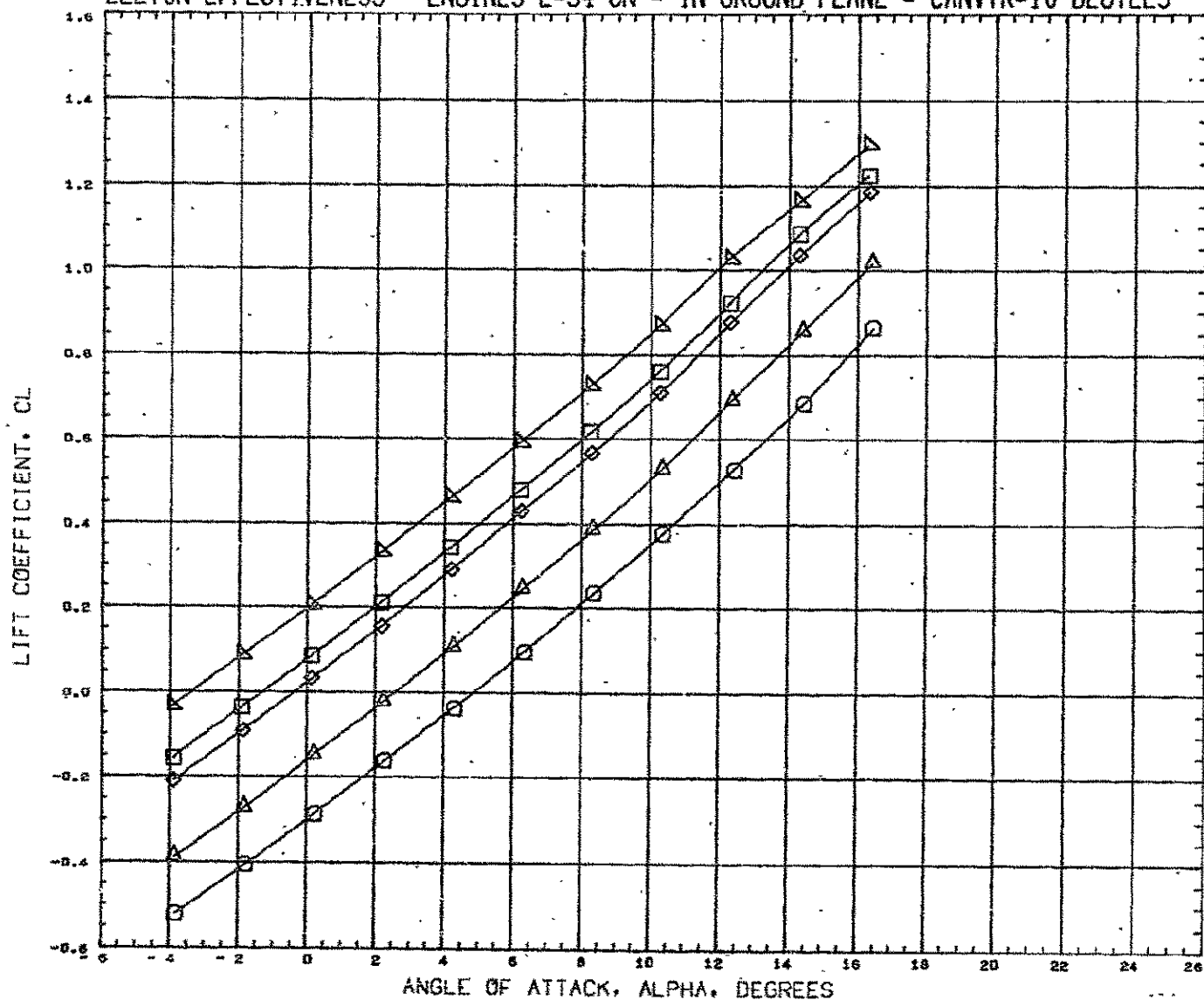
REFERENCE INFORMATION		
SREF	380.3884	sq. in
LSREF	15.2150	in.
BRREF	30.4400	in.
YMRP	33.4365	in.
YMRP	0.0000	in.
ZMRP	3.9300	in.
SCALE	0.0175	

DATA HIST. CODE MVV

GDLST 587-1 B21X1V7W16G3 + GP

(ACV606) 24 JUL 71 PAGE 174

ELEVON EFFECTIVENESS ENGINES E-34 ON - IN GROUND PLANE - CANVTR=10 DEGREES

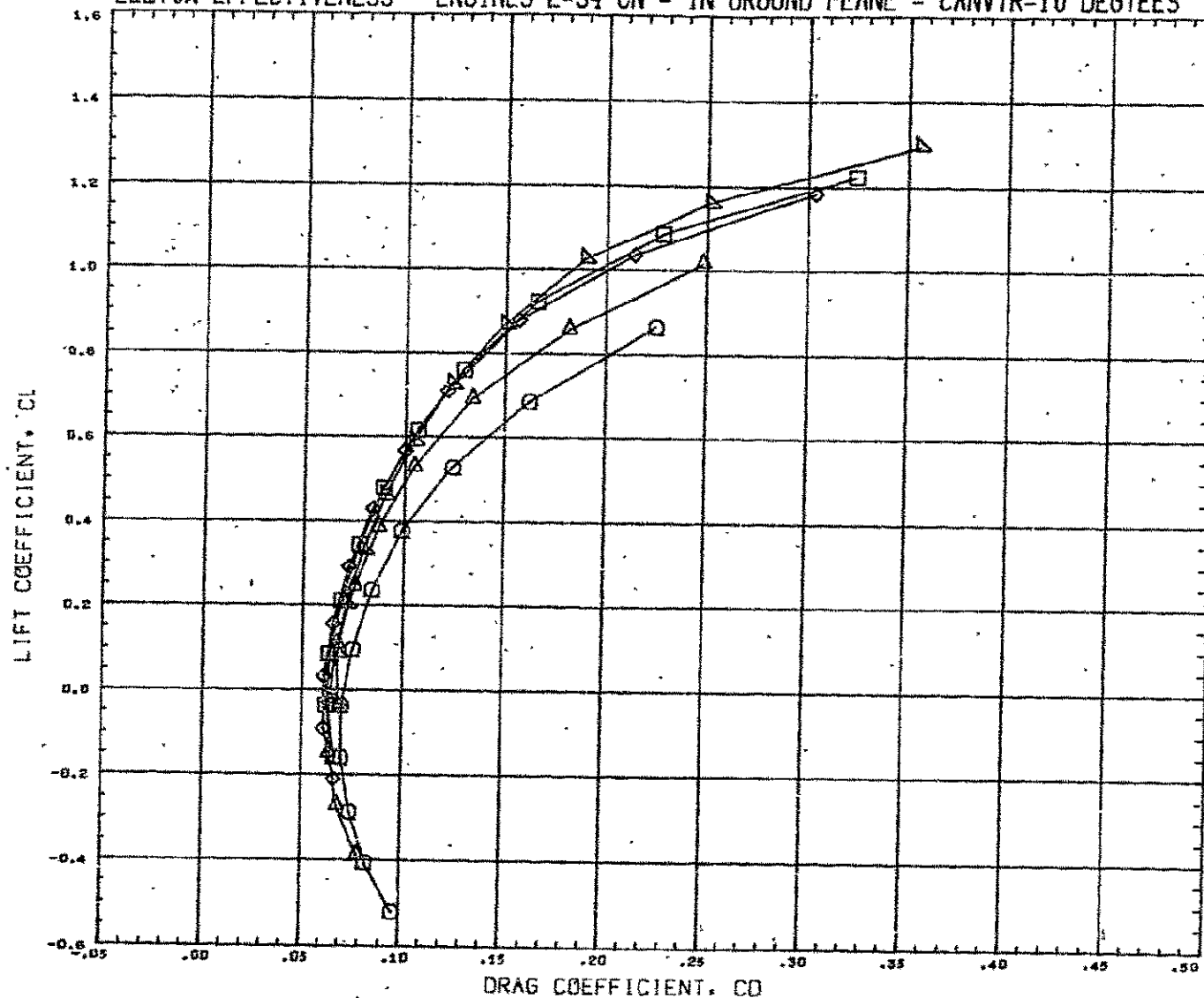


SYMBOL	ELEVTR	PARAMETRIC VALUES			
△	20.000	BETA	0.000	MACH	0.201
◇	10.000	RUDDER	0.000	CANVTR	10.000
□	0.000	CANRON	0.000	AILRON	0.000
○	3.000				
	10.000				

REFERENCE INFORMATION		
SREF	360.3004	Sq. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
TMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

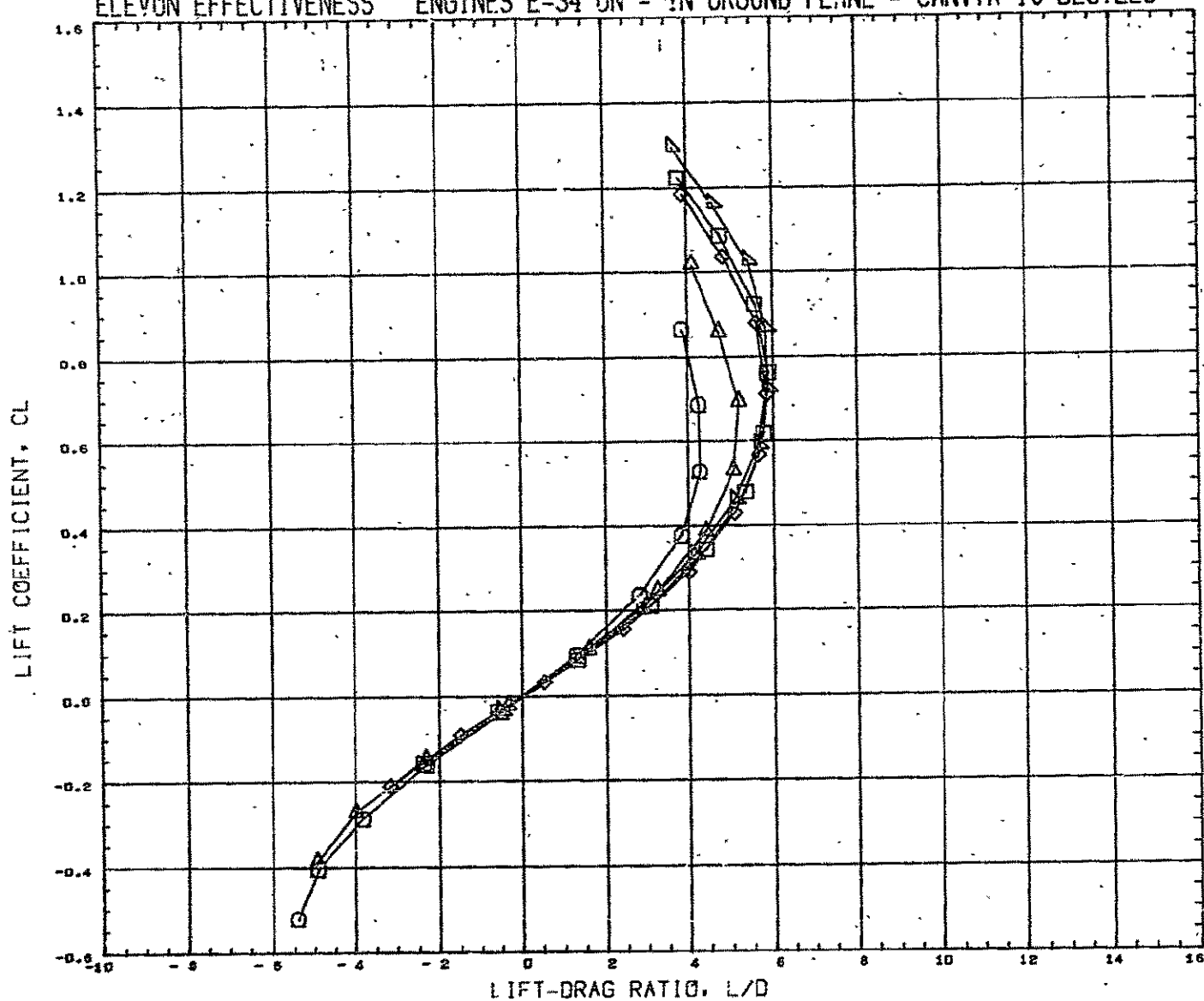
ELEVON EFFECTIVENESS ENGINES E-34 ON - IN GROUND PLANE - CANVTR=10 DEGTrees



SYMBOL	ELEVTR	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	20.000	BETA	0.000	MACH	0.201	SREF	380.3004	SQ. IN
◇	10.000	RUDDER	0.000	CANVTR	10.000	LREF	15.2150	IN.
△	0.000	CANRON	0.000	AILRON	0.000	BREF	30.4480	IN.
□	3.000					XMRP	33.4360	IN.
▽	10.000					YMRP	0.0080	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10 (ACVG08) 24 JUL 71; P.3E 176

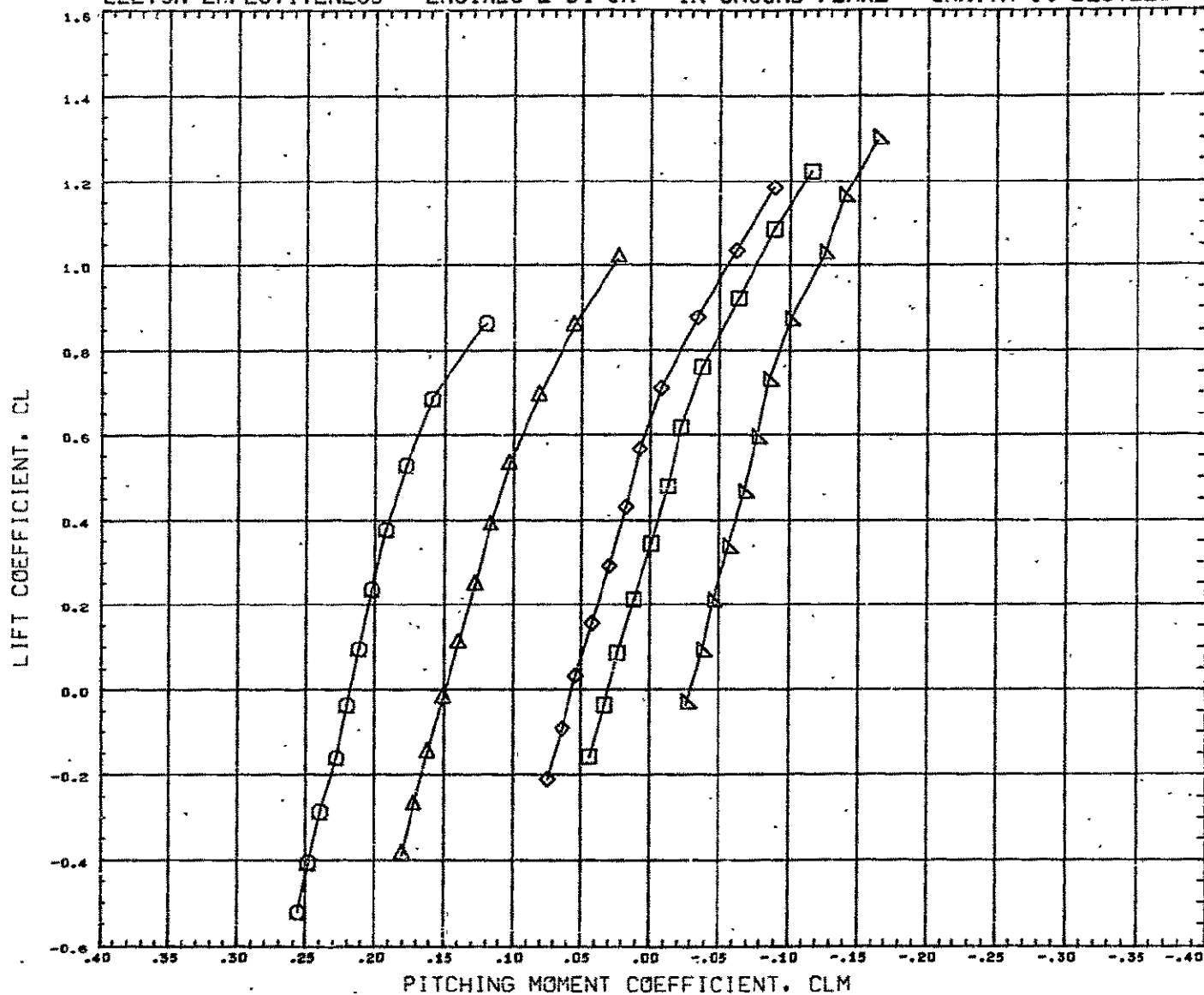
ELEVON EFFECTIVENESS ENGINES E-34 ON - IN GROUND PLANE - CANVTR=10 DEGREES



SYMBOL	ELEVTR	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	-20.000	BETA	0.000	MACH	0.201	SREF	300.5004	sq. IN
△	-10.000	RUDDER	0.000	CANVTR	10.000	LREF	15.2150	IN.
□	0.000	CANROW	0.000	AILRON	0.000	BREF	30.4400	IN.
◇	3.000					XMRP	33.4360	IN.
▽	10.000					YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

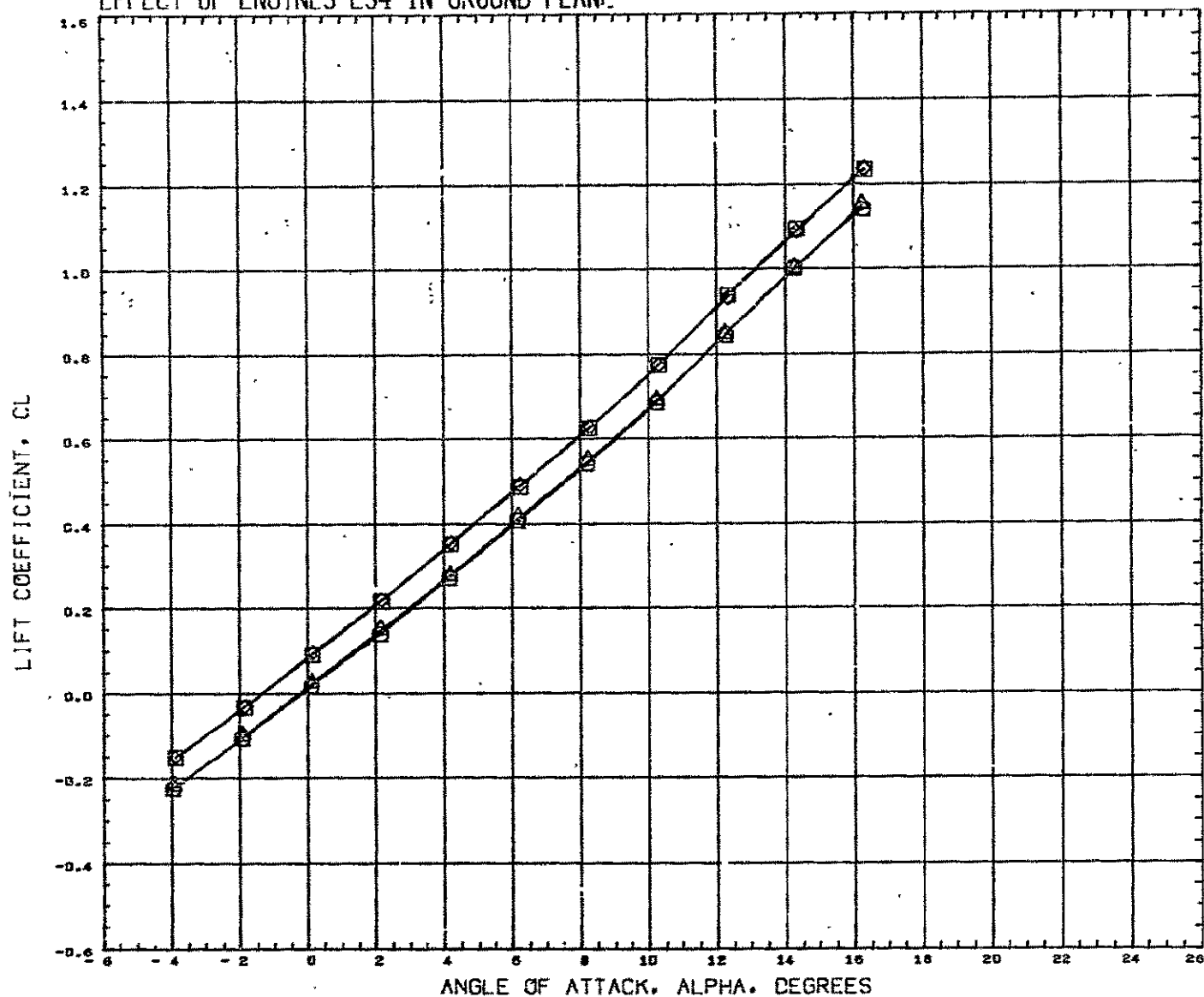
DATA HIST. CODE MVV

ELEVON EFFECTIVENESS ENGINES E-34 CN - IN GROUND PLANE - CANVTR=10 DEGTES



SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION	
Δ	20.000	BETA	0.000	MACH	0.201	SREF	380.3004
\square	10.000	RUDDER	0.000	CANVTR	10.000	LREF	15.2155
\diamond	0.000	CANRON	0.000	AILRON	0.000	BPEF	50.4400
\circ	3.000					XMRP	33.4360
	10.000					YMRP	0.0000
						ZMRP	3.9380
						SCALE	0.0175
		DATA HIST. CODE	MVV				

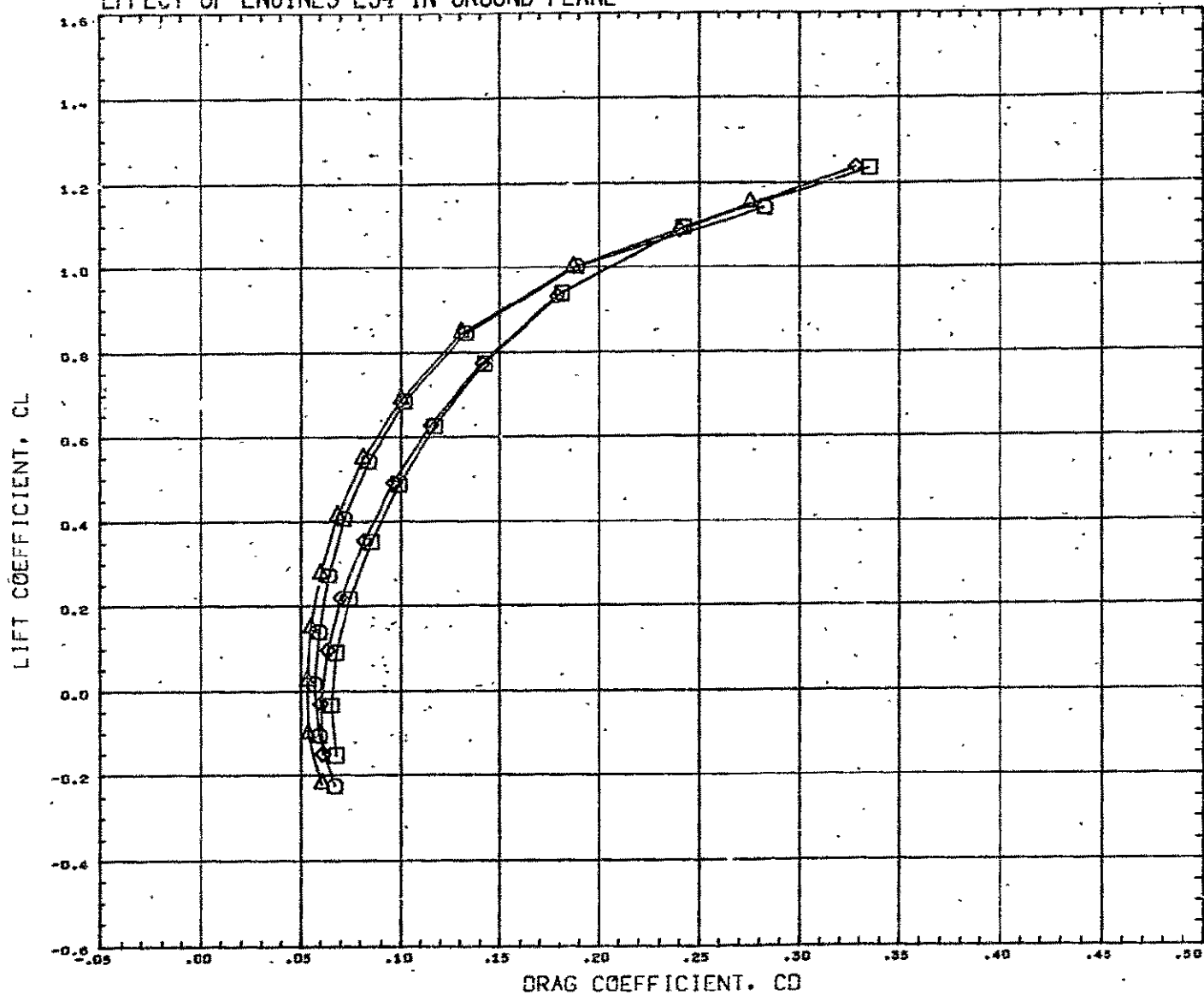
EFFECT OF ENGINES E34 IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILERON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ECV609)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
(ECV602)	GDLST 587-1 B21X1V7C4W15G3 + GP DC = 0	0.000	0.000	0.000	0.000	LREF	15.2150	IN.
(ECV605)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 15	3.000	0.000	0.000	15.000	BREF	30.4400	IN.
(ECV607)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 15	3.000	0.000	0.000	15.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

MACH 0.201

EFFECT OF ENGINES E34 IN GROUND PLANE

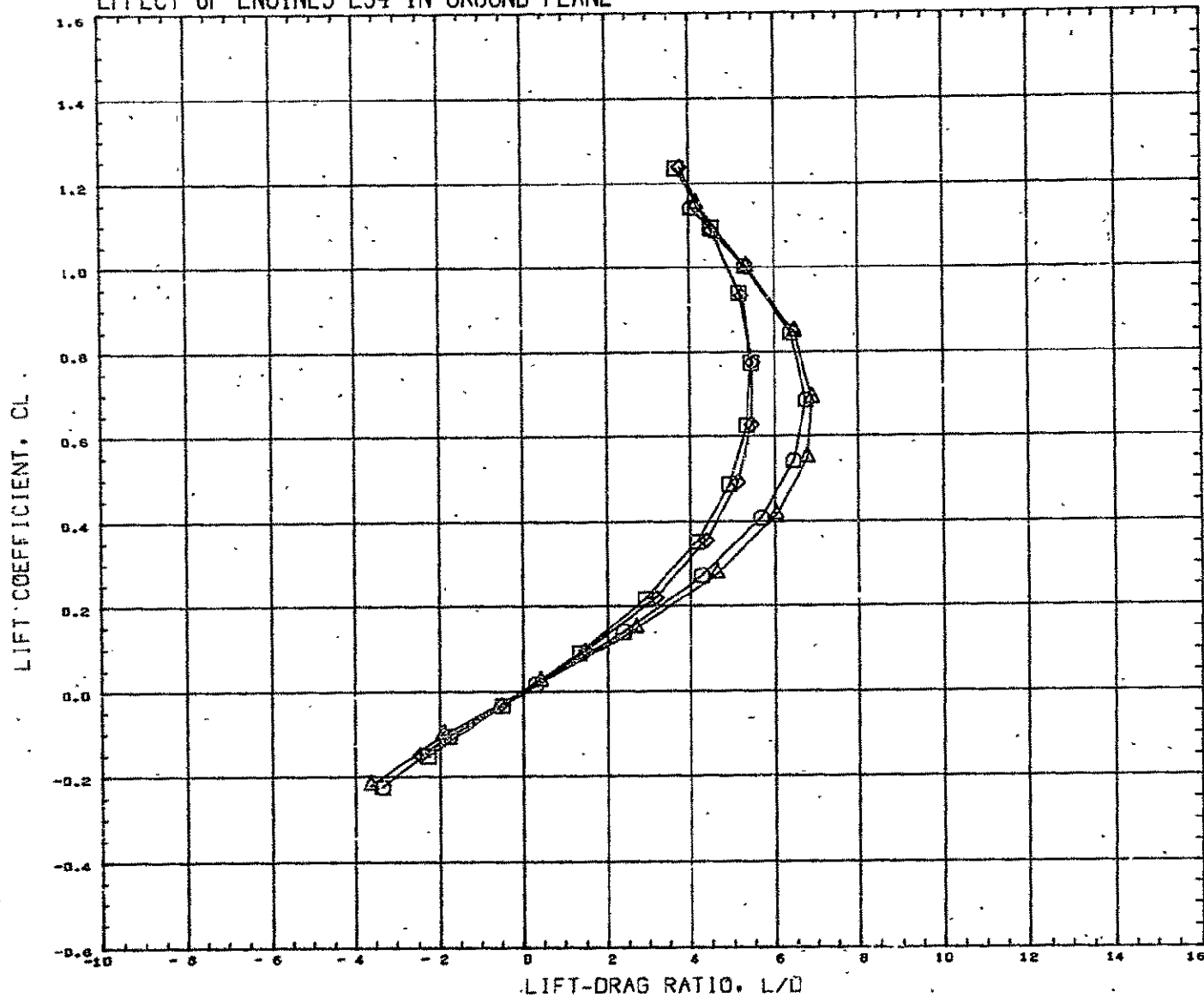


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ECV609)	○	GDLST 587-1 B21X1V7C4W1663E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF 380.4004 sq. IN
(ECV602)	△	GDLST 587-1 B21X1V7C4W1663 + GP DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(ECV605)	◇	GDLST 587-1 B21X1V7C4W1663 + GP DC = 15	3.000	0.000	0.000	15.000	BREF 30.4400 IN.
(ECV607)	□	GDLST 587-1 B21X1V7C4W1663E34 + GP DC = 15	3.000	0.000	0.000	15.000	XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.0300 IN.
							SCALE 0.0175

MACH 0.201

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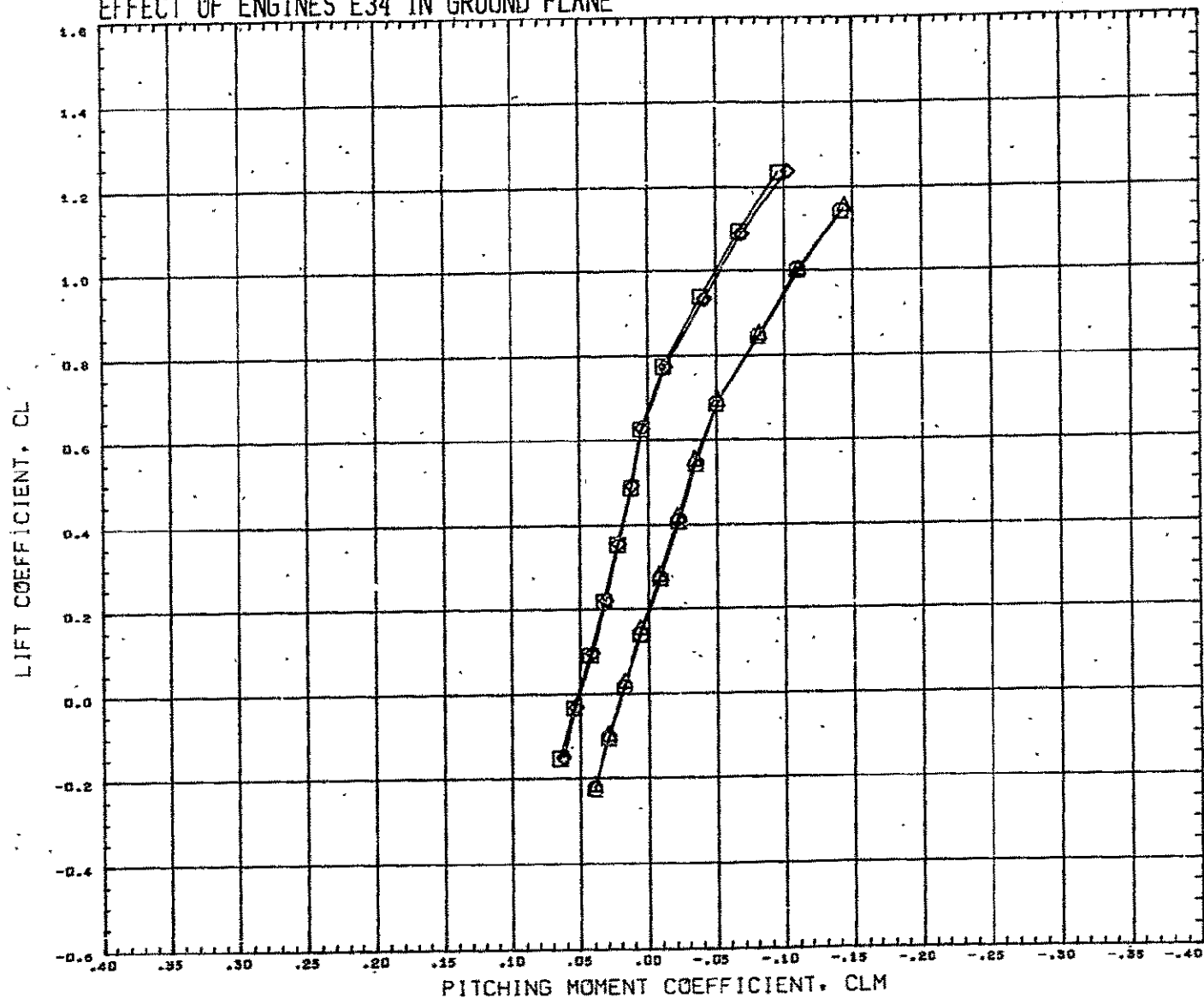
EFFECT OF ENGINES E34 IN GROUND PLANE



DATA SET SYMBOL	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ECV609)	○	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF 380.3904 SG. IN
(ECV602)	Δ	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(ECV605)	◊	GDLST 587-1 B21X1V7C4W16G3 + C. DC = 15	3.000	0.000	0.000	15.000	BREF 30.4480 IN.
(ECV607)	□	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 15	3.000	0.000	0.000	15.000	XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.0380 IN.
							SCALE 0.0175

MACH 0.201

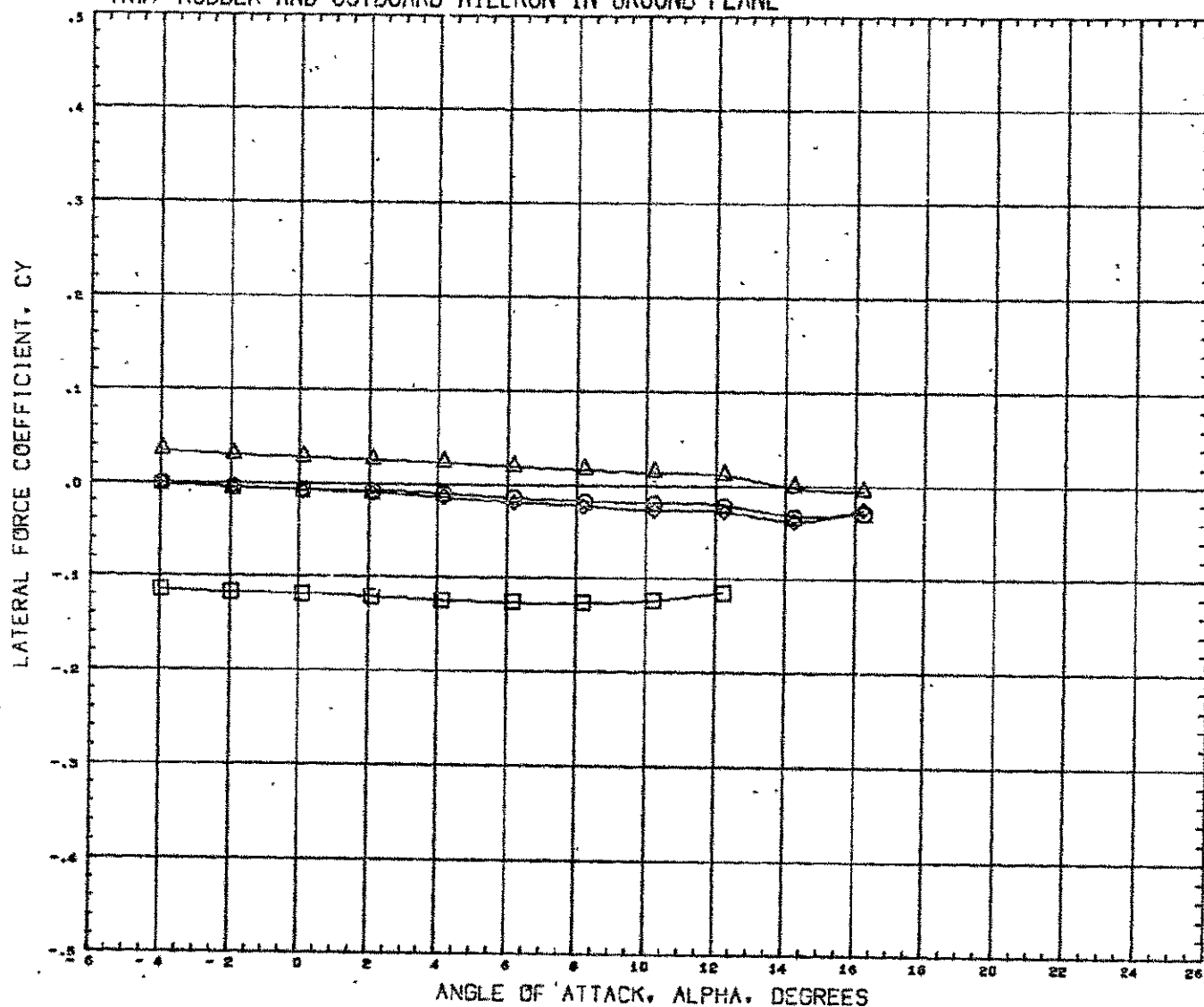
EFFECT OF ENGINES E34 IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION-DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ECV609)	GDLST 587-1 B21X1V7C4W1663E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ECV602)	GDLST 587-1 B21X1V7C4W1663 + GP DC = 0	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
(ECV605)	GDLST 587-1 B21X1V7C4W1663 + GP DC = 15	3.000	0.000	0.000	15.000	BREF	30.4400 IN.
(ECV607)	GDLST 587-1 B21X1V7C4W1663E34 + GP DC = 15	3.000	0.000	0.000	15.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

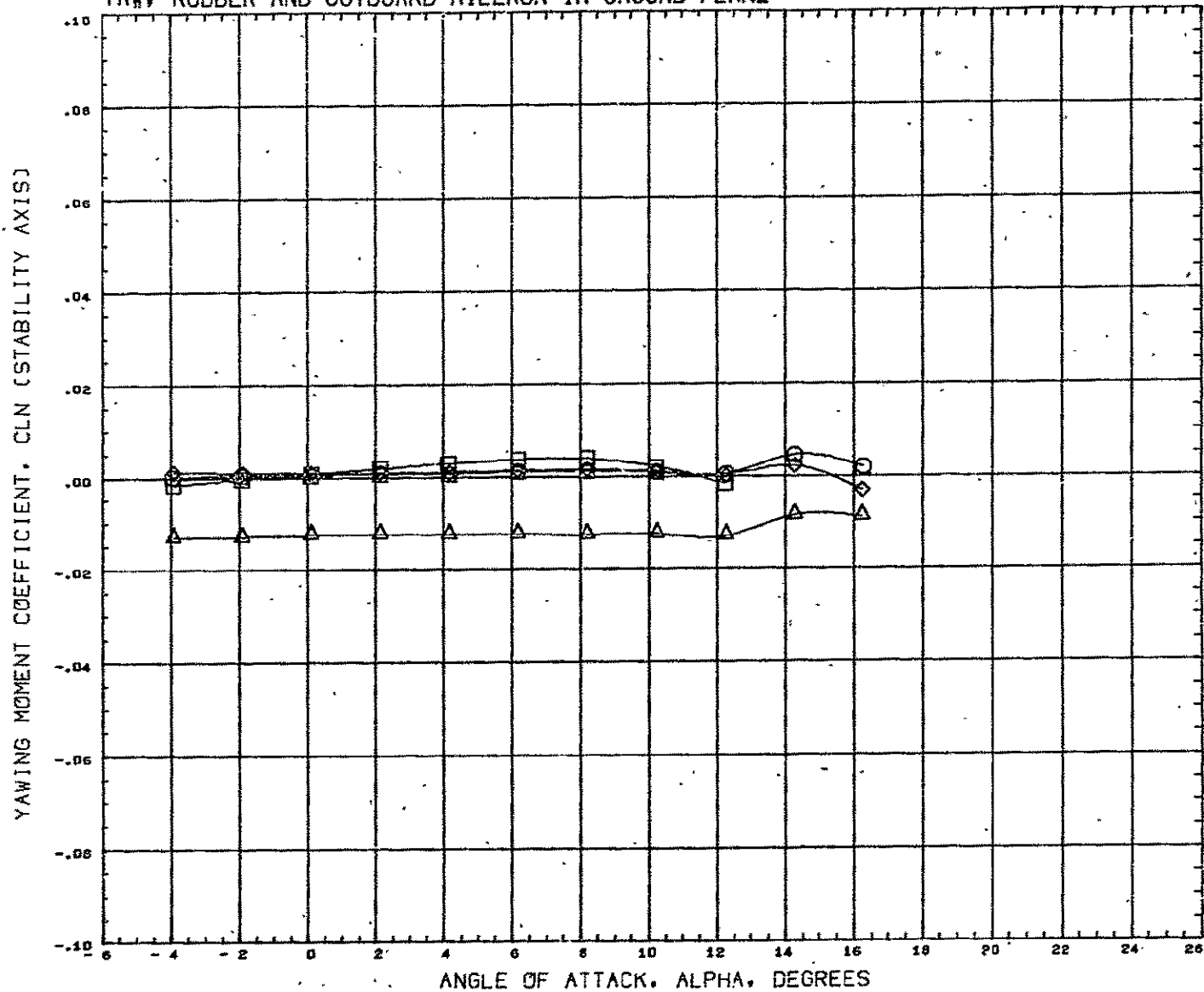
YAW, RUDDER AND OUTBOARD AILERON IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVT	REFERENCE INFORMATION
(ACV009)	GDLS7 587-1 B21X1V7C4W16G3E34 + CP DC = 0	0.000	0.000	0.000	0.000	SRF 380.3004 SQ. IN
(ACV010)	GDLS7 587-1 B21X1V7C4W16G3E34 + CP DR = 10	0.000	0.000	10.000	0.000	LREF 15.2130 IN.
(ACV011)	GDLS7 587-1 B21X1V7C4W16G3E34 + CP DA = 5	5.000	5.000	0.000	0.000	BREF 30.4400 IN.
(ACV012)	GDLS7 587-1 B21X1V7C4W16G3E34 + CP BETA = 5	5.000	0.000	0.000	0.000	XNRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZNRP 3.9580 IN.
						SCALE 0.0175

ELEVTR 0.000

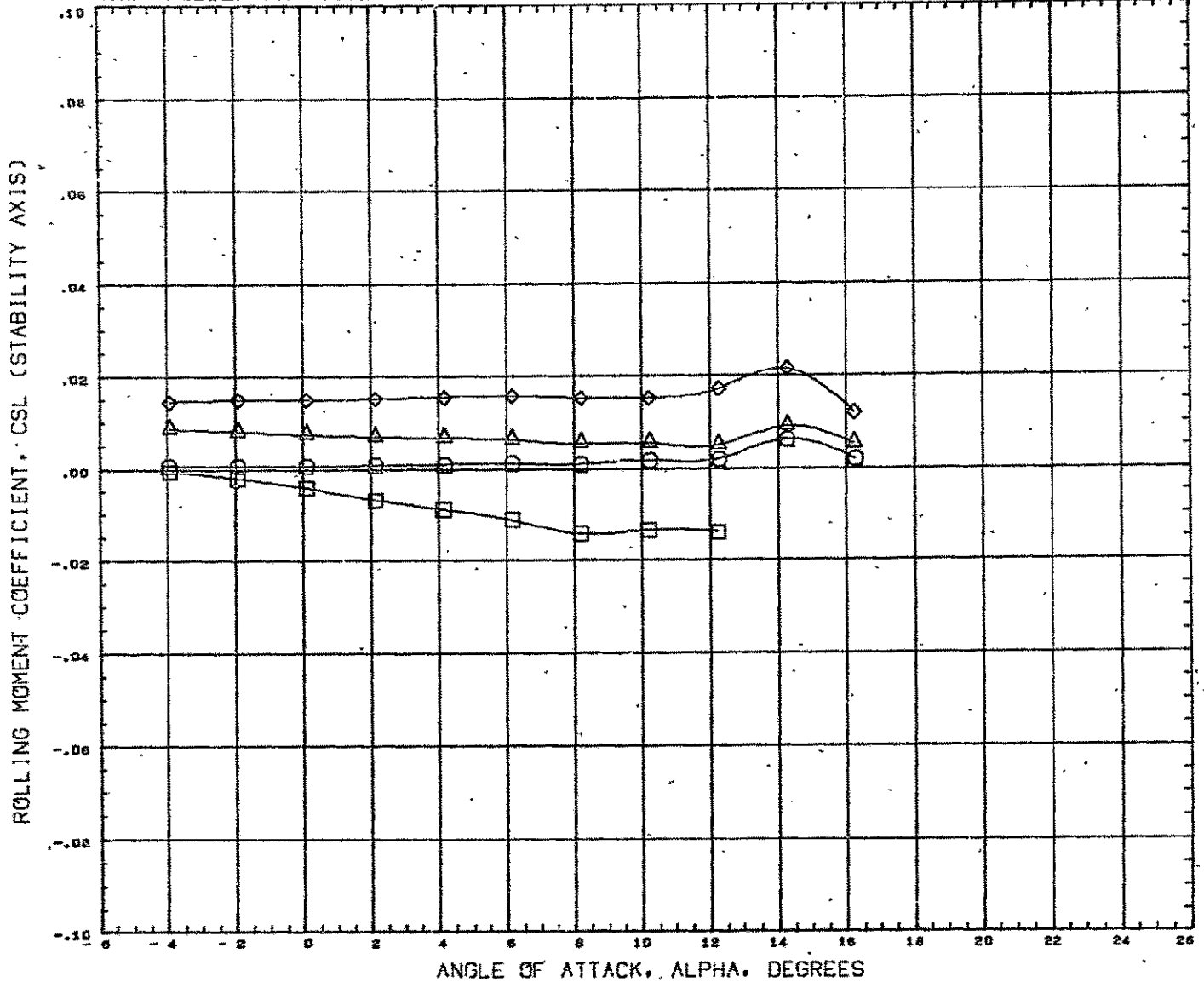
YAW, RUDDER AND OUTBOARD AILERON IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACV609)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(ACV610)	GDLST 587-2 B21X1V7C4W16G3E34 + GP DR = 10	0.000	0.000	10.000	0.000	LREF	15.2150 IN.
(ACV611)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DA = 5	0.000	5.000	0.000	0.000	BREF	30.4400 IN.
(ACV612)	GDLST 587-1 B21X1V7C4W16G3E34 + GP BETA = 5	5.000	0.300	0.000	0.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						CMLE	0.0175

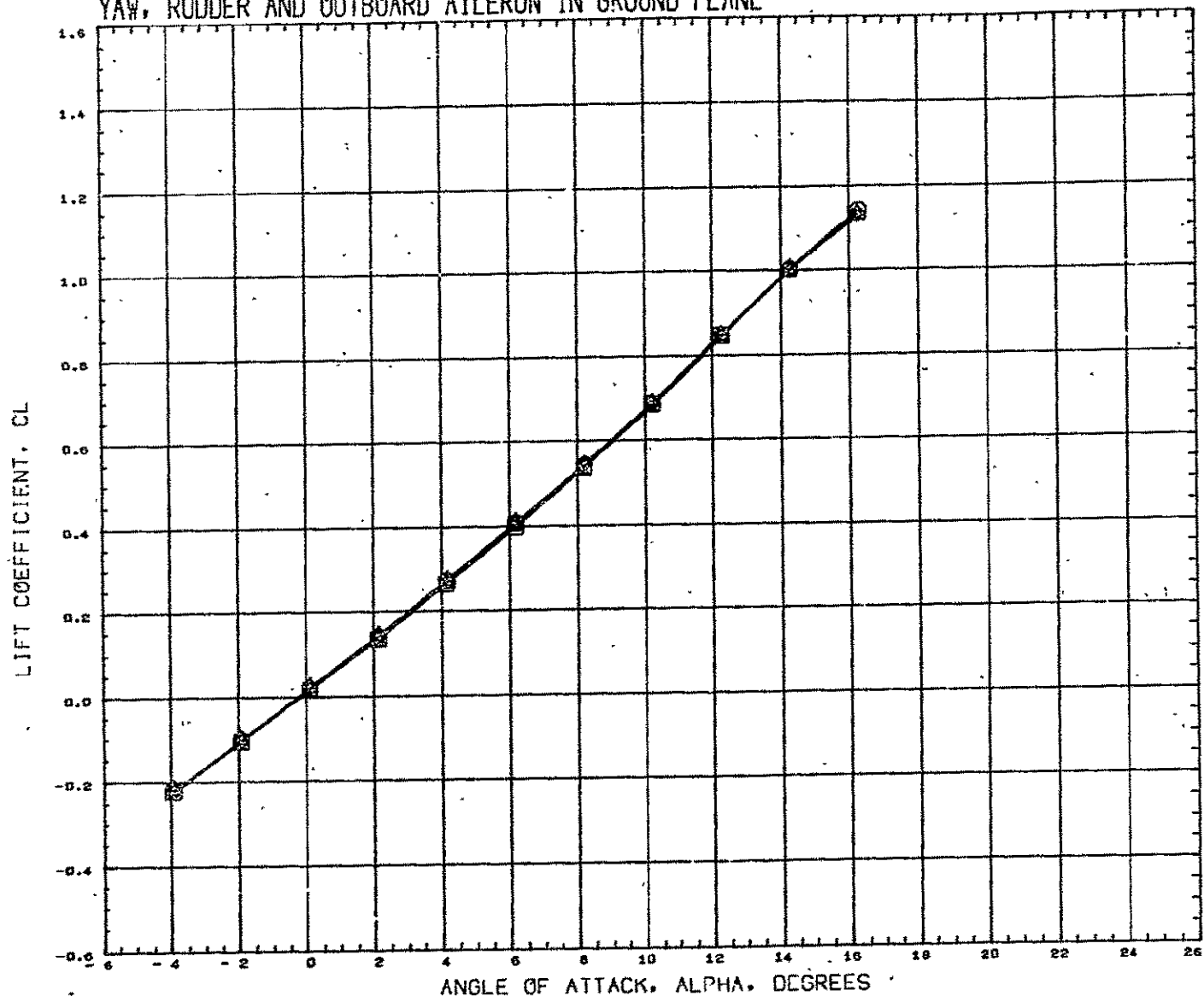
ELEVTR 0.000

YAW, RUDDER AND OUTBOARD AILERON IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACV609)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SRZF	389.5004	sq. IN
(ACV610)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DR = 10	0.000	0.000	10.000	0.000	LREF	15.2150	IN.
(ACV611)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DA = 5	0.000	5.000	0.000	0.000	BREF	30.4400	IN.
(ACV612)	GDLST 587-1 B21X1V7C4W16G3E34 + GP BETA = 5	5.000	0.000	0.000	0.000	XMRP	53.4360	IN.
						YNRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
ELEVTR 0.000								

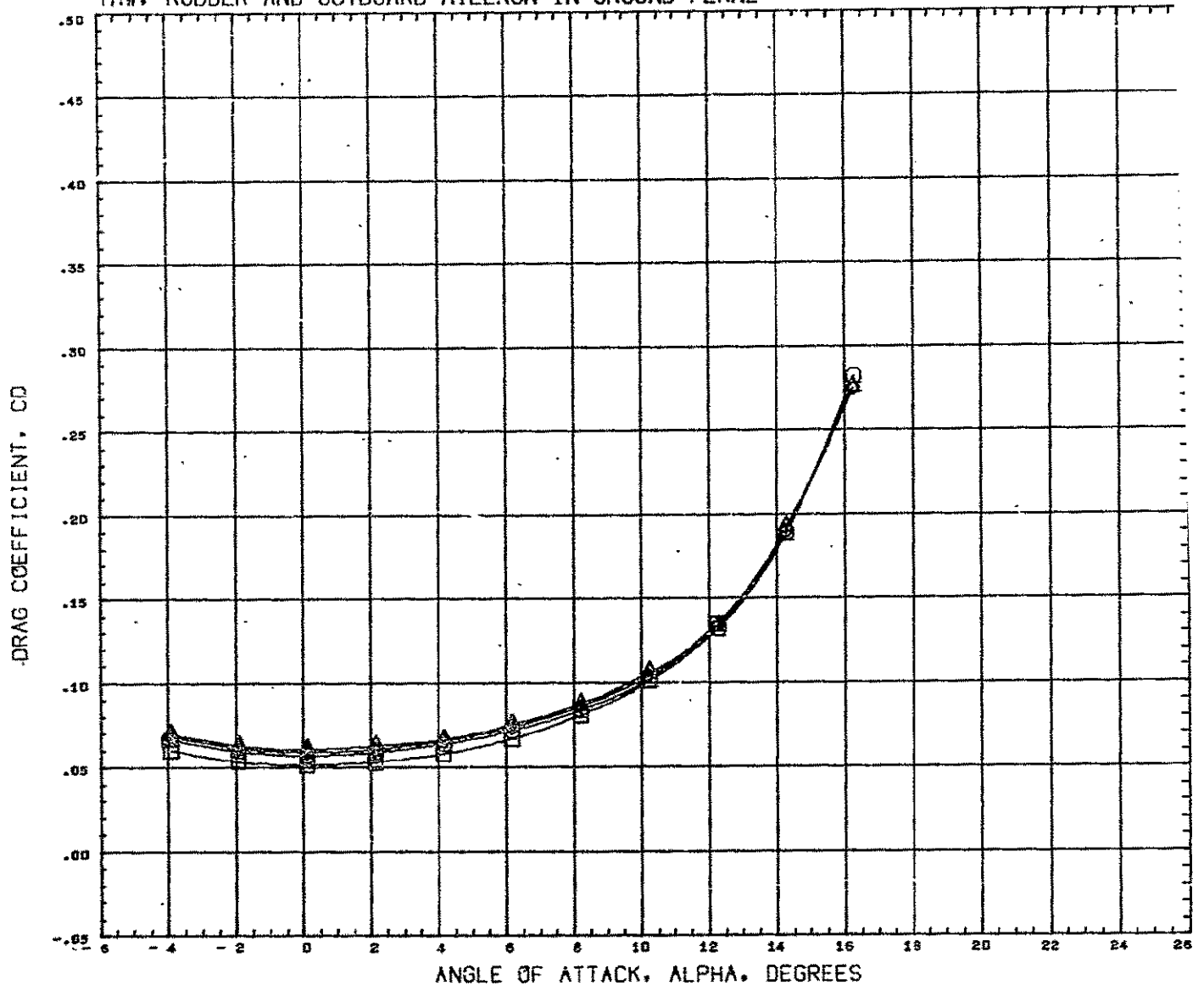
YAW, RUDDER AND OUTBOARD AILERON IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ACVG09)	QDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF	380.5004 SQ. IN
(ACVG10)	QDLST 587-1 B21X1V7C4W16G3E34 + GP DR = 10	0.000	0.000	10.000	0.000	LREF	15.2150 IN.
(ACVG11)	QDLST 587-1 B21X1V7C4W16G3E34 + GP DA = 5	0.000	5.000	0.000	0.000	BREF	30.4400 IN.
(ACVG12)	QDLST 587-1 BR1X1V7C4W16G3E34 + GP BETA = 5	5.000	0.000	0.000	0.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

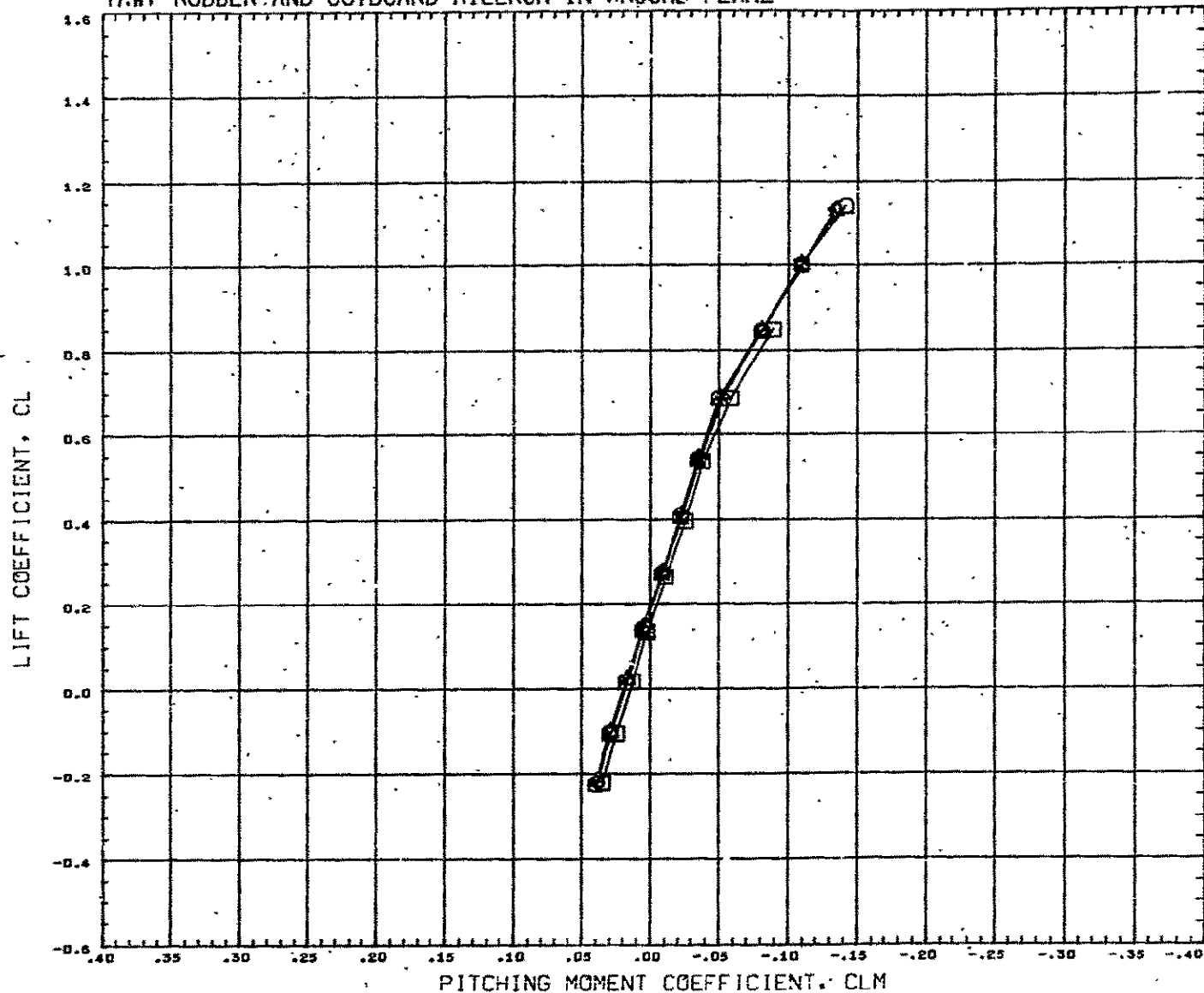
ELEVTR 0.000

YAW, RUDDER AND OUTBOARD AILERON IN GROUND PLANE



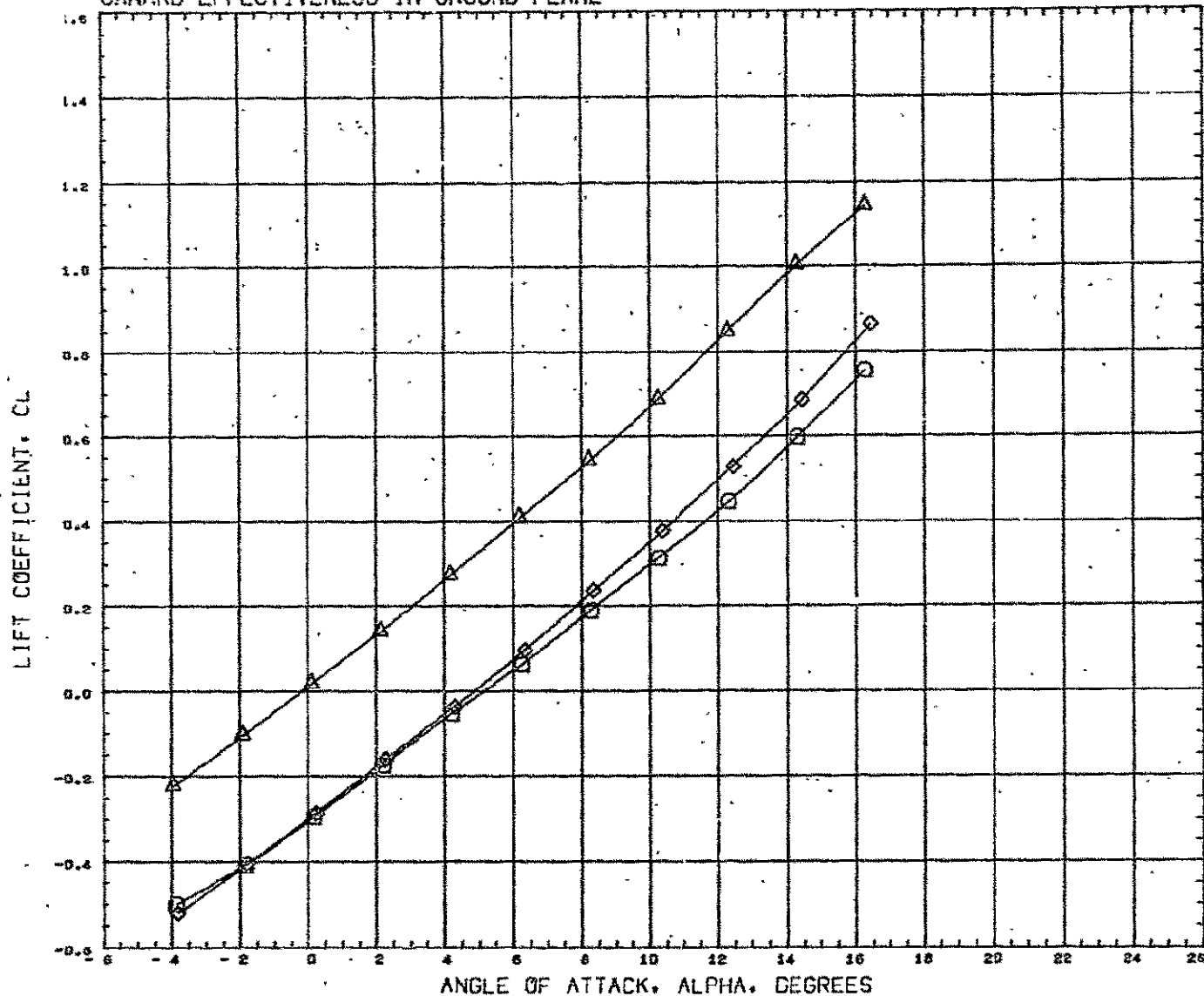
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACVG09)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004	58. IN
(ACVG10)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DR = 10	0.000	0.000	10.000	0.000	LREF	15.2150	IN.
(ACVG11)	GDLST 587-1 B21X1V7C4W16G3E34 + GP PA = 5	0.000	5.000	0.000	0.000	BREF	30.4400	IN.
(ACVG12)	GDLST 587-1 B21X1V7C4W16G3E34 + GP BETA = 5	5.000	0.000	0.000	0.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
ELEVTR		0.000						

YAW, RUDDER AND OUTBOARD AILERON IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ACVG09)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREP	380.3054	98. IN
(ACVG10)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DR = 10	0.000	0.000	10.000	0.000	LREF	15.2150	IN.
(ACVG11)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DA = 5	0.000	5.000	0.000	0.000	BREF	30.4400	IN.
(ACVG12)	GDLST 587-1 B21X1V7C4W16G3E34 + GP BETA = 5	5.000	0.000	0.000	0.000	XHRP	33.4360	IN.
						YMRP	0.0000	IN.
						YMRP	3.9380	IN.
						CALE	0.0175	
ELEVTR		0.000						

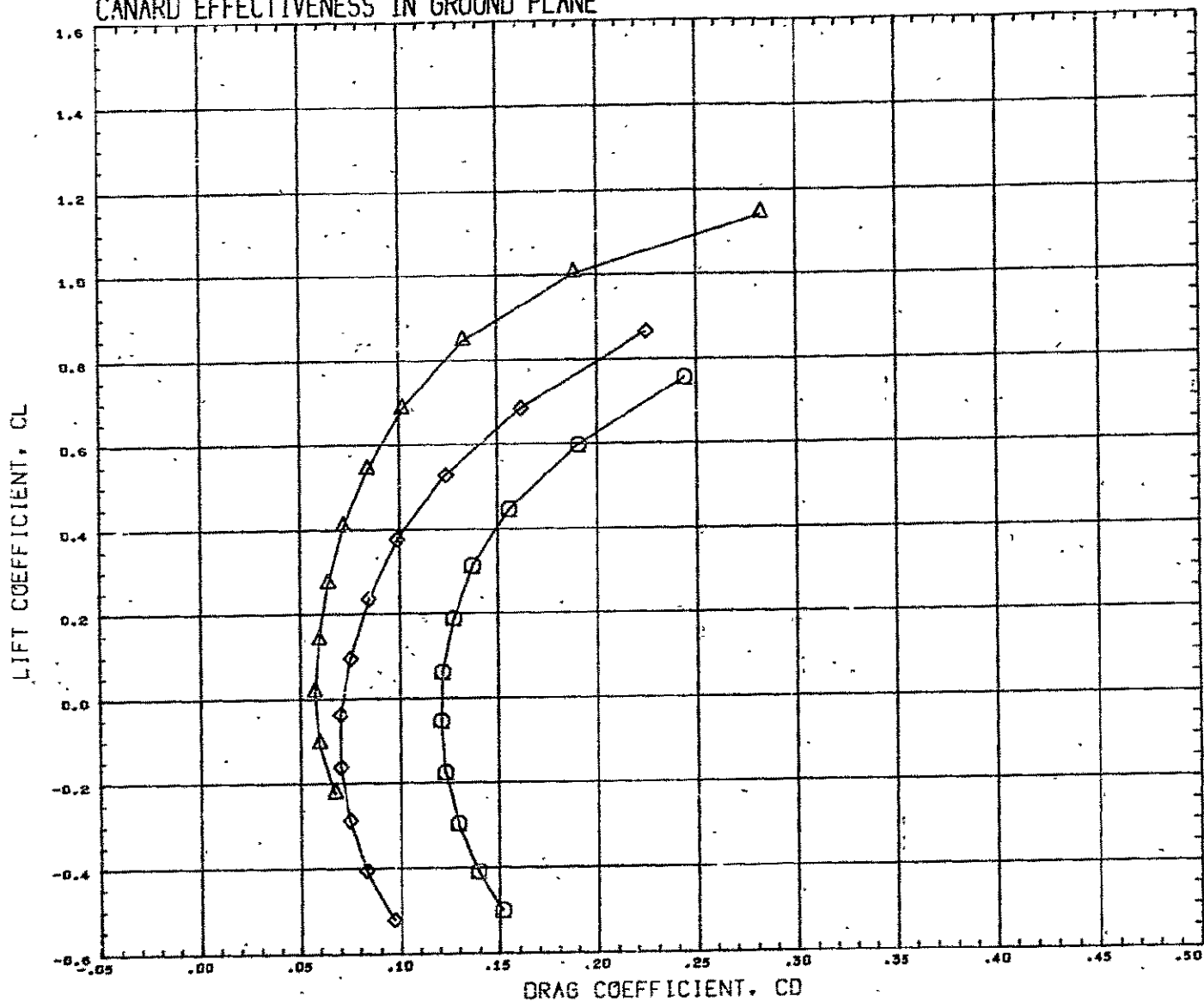
CANARD EFFECTIVENESS IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILERON	RUDDER	CANVTR	REFERENCE INFORMATION
(ECV613)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = -90	-20.000	0.000	0.000	-90.000	SREF 390.3004 SQ. IN
(FCV609)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(YCV608)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	-20.000	0.000	0.000	10.000	BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

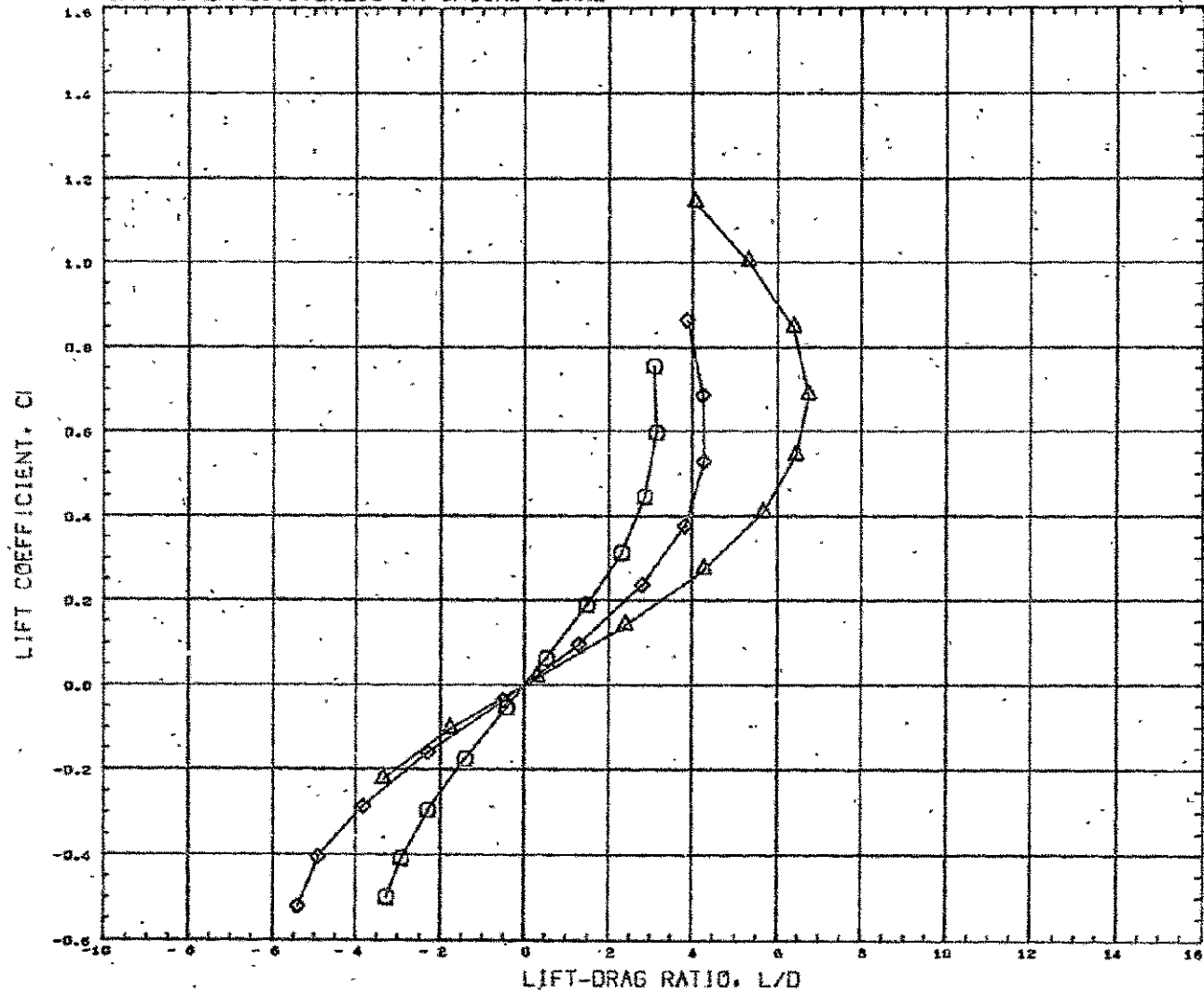
BETA 0.000

CANARD EFFECTIVENESS IN GROUND PLANE



DATA SET SYMBOL	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION
(ECV613)	○	CDLST 587-1 B21X1V7C4W16G3E34 + GP DC = -90	-20.000	0.000	0.000	-90.000	SREF 380.3004 SQ. IN
(FCV609)	△	CDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(ICV608)	◇	CDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	-20.000	0.000	0.000	10.000	BREF 30.4480 IN.
							XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.0175

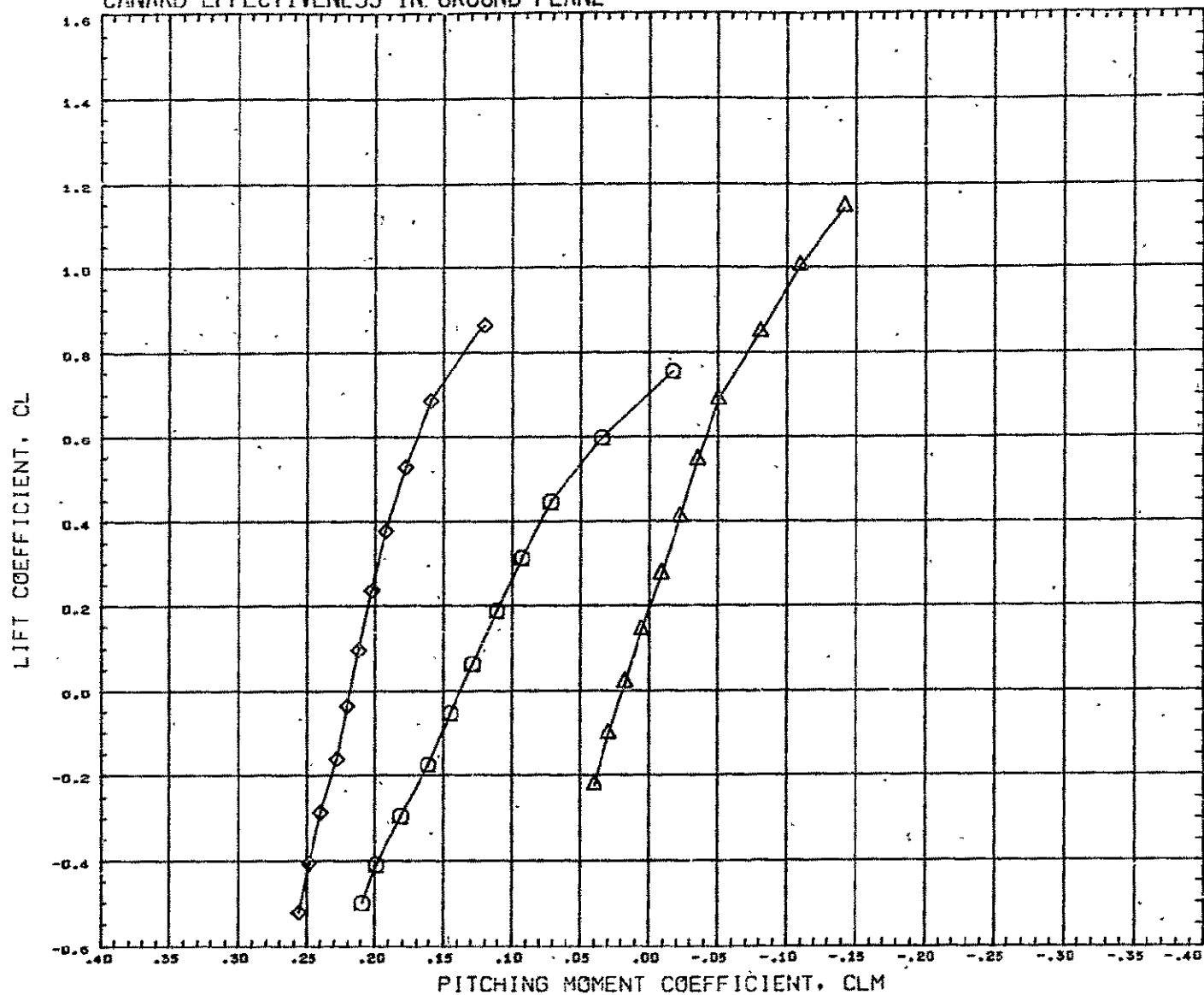
CANARD EFFECTIVENESS IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(ECV613)	6DLST 587-1 B21X1V7C4W16G3E34 + GP DC = -90	-20.000	0.000	0.000	-90.000	SREF	380.3094	90. IN
(FCV609)	6DLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	LREF	13.2150	1N.
(ICV608)	6DLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	-20.000	0.000	0.000	10.000	BREF	30.4490	1N.
						XMRP	33.4360	1N.
						YMRP	0.0000	1N.
						ZMRP	3.9360	1N.
						SCALE	0.0175	

BETA 0.000

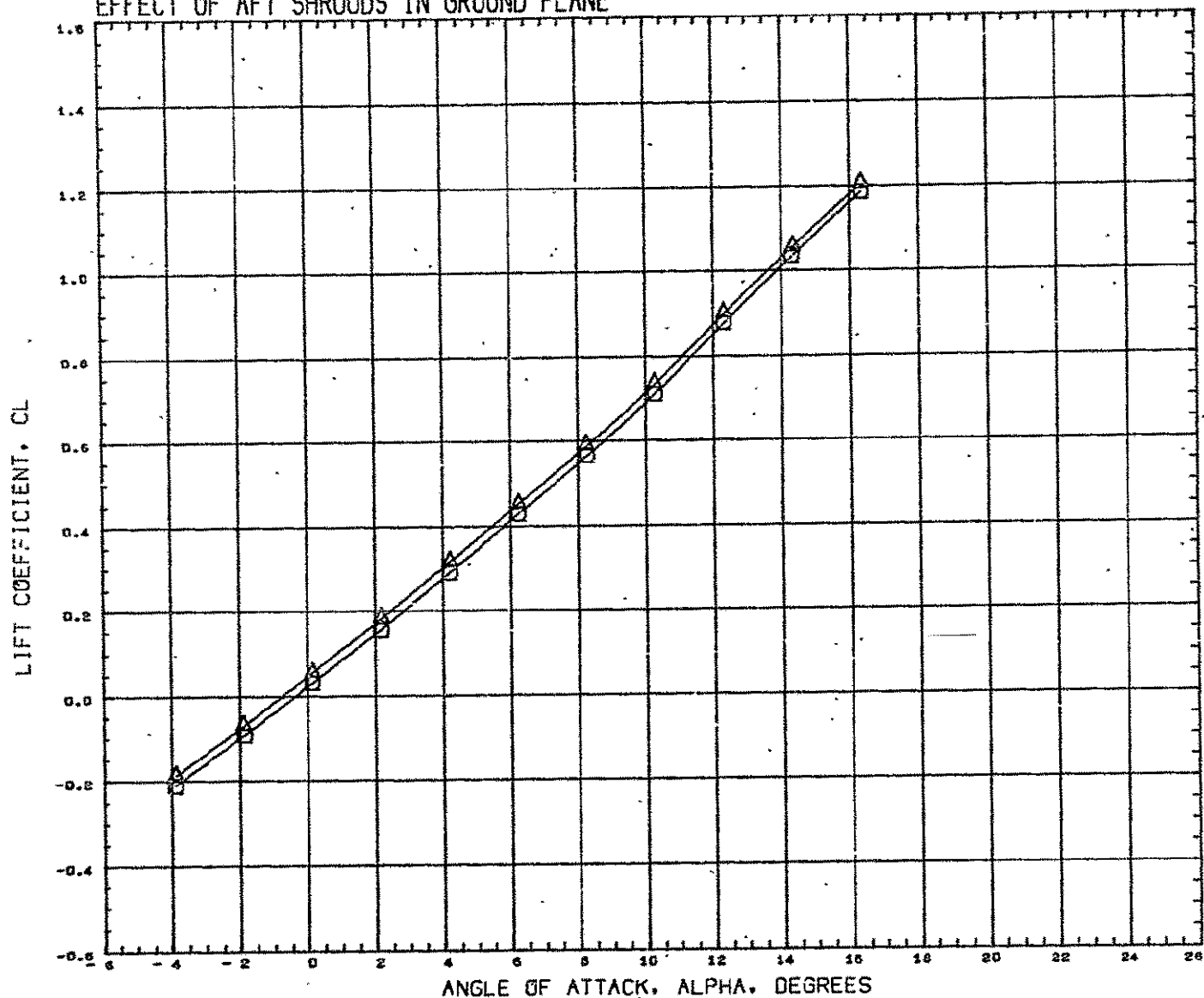
CANARD EFFECTIVENESS IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(ECV613)	6DLST 587-1 B21X1V7C4W16G3E34 + GP DC = -90	-20.000	0.000	0.000	-90.000	SREF	380.3004 SQ. IN
(FCV609)	6DLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	LREF	15.2135 IN.
(ICV606)	6DLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	-20.000	0.000	0.000	10.000	BREF	30.4400 IN.
						XMRF	33.4360 IN.
						YMRF	0.0000 IN.
						MRP	3.9380 IN.
						CALE	0.0175

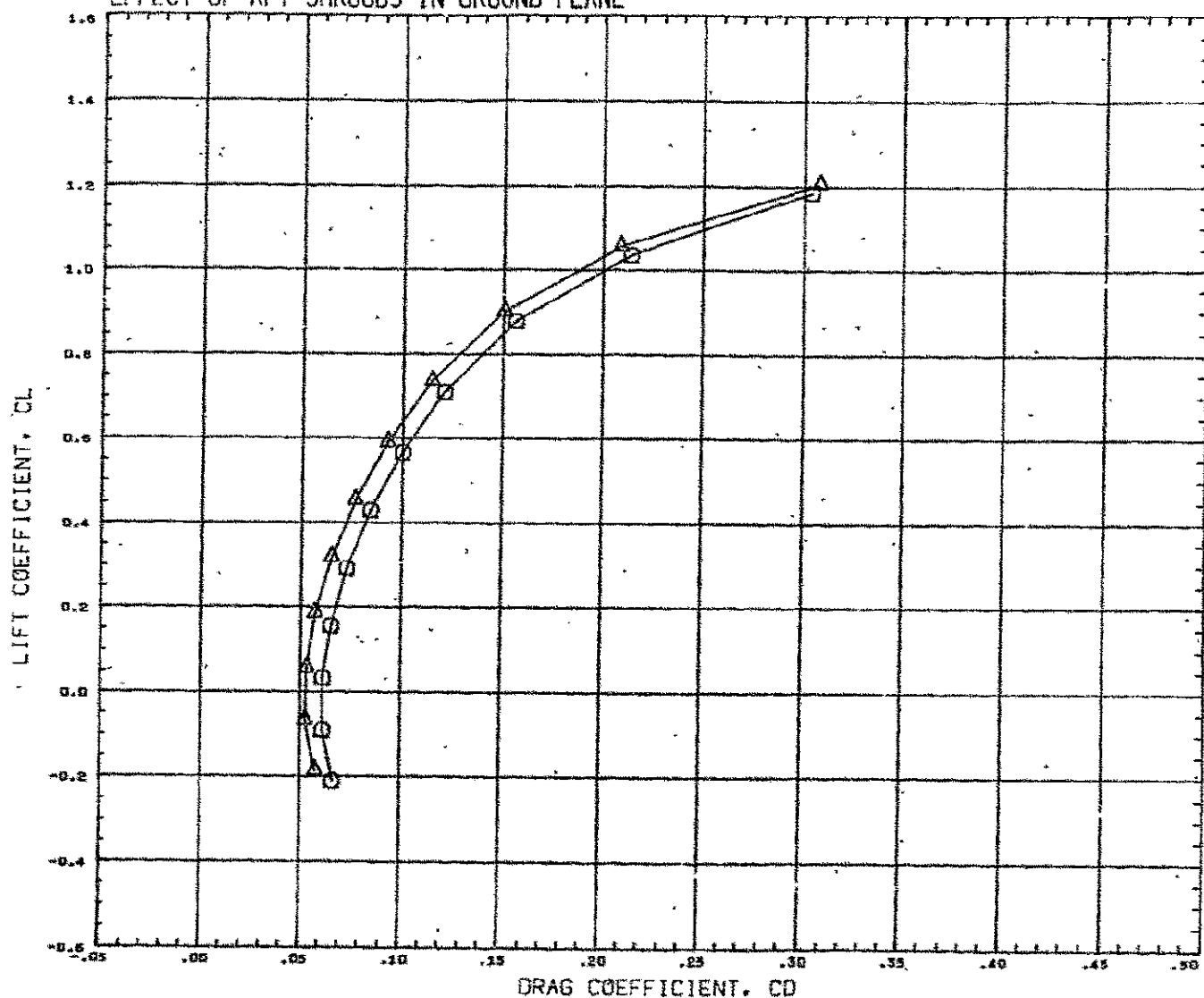
BETA 0.000

EFFECT OF AFT SHROUDS IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(BCV008)	QDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	0.000	0.000	10.000	SREF	360.3004	sq. IN
(ACVG14)	QDLST 587-1 B21X3V7C4W16G3E34 + GP DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150	IN.
						BREF	30.4400	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
ELEVTR 0.000								

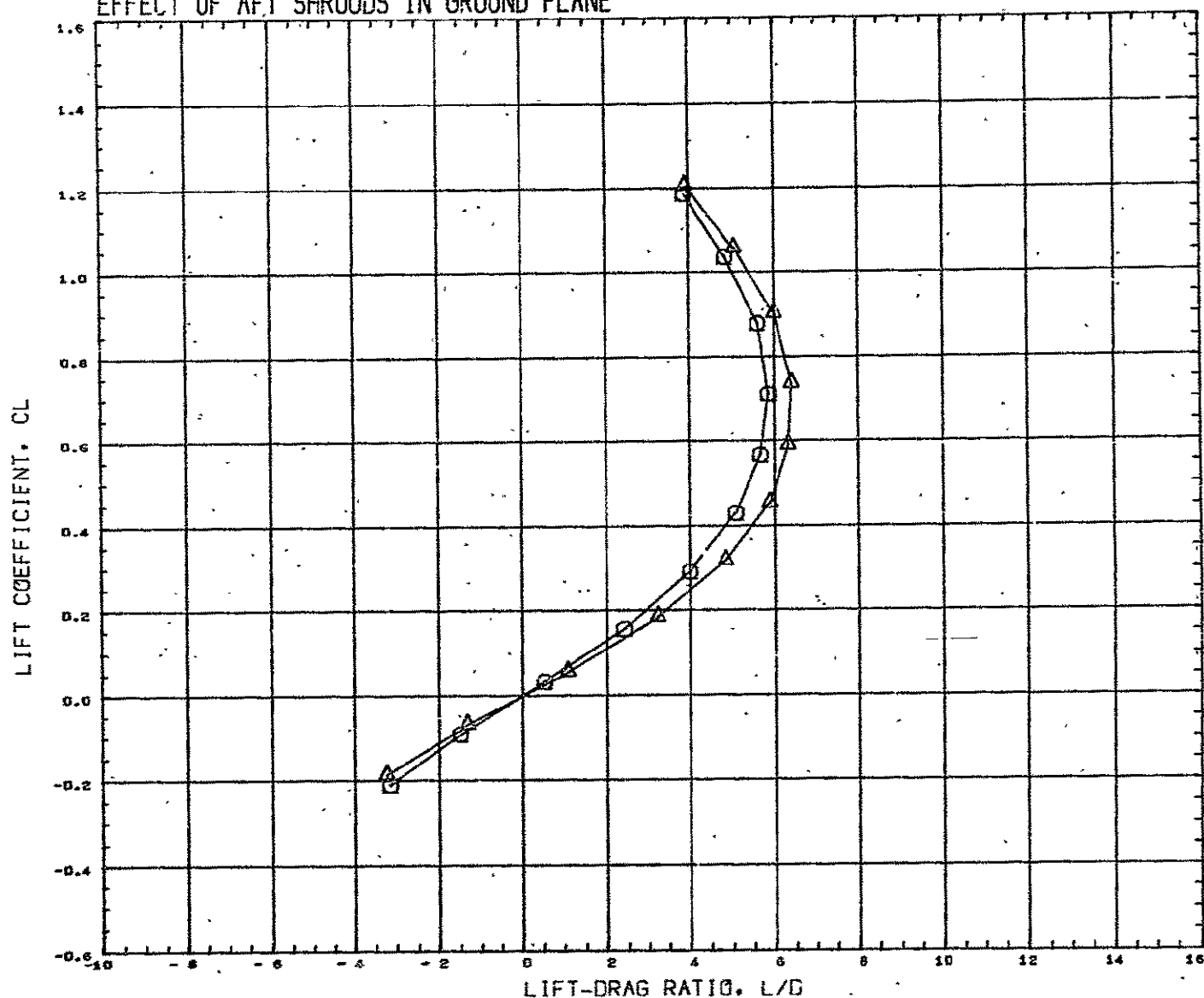
EFFECT OF AFT SHROUDS IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION		
(BCV008)	QDLST 587-1 B21XV7C4W1663E34 + 6P DC = 10	0.000	0.000	0.000	10.000	SREF	380.3004	Sq. IN
(ACV014)	QDLST 587-2 B21XV7C4W1663E34 + 6P DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150	IN.
						SREF	30.4400	IN.
						XWRP	33.4360	IN.
						YWRP	0.0000	IN.
						ZWRP	3.9380	IN.
						SCALE	0.0175	IN.

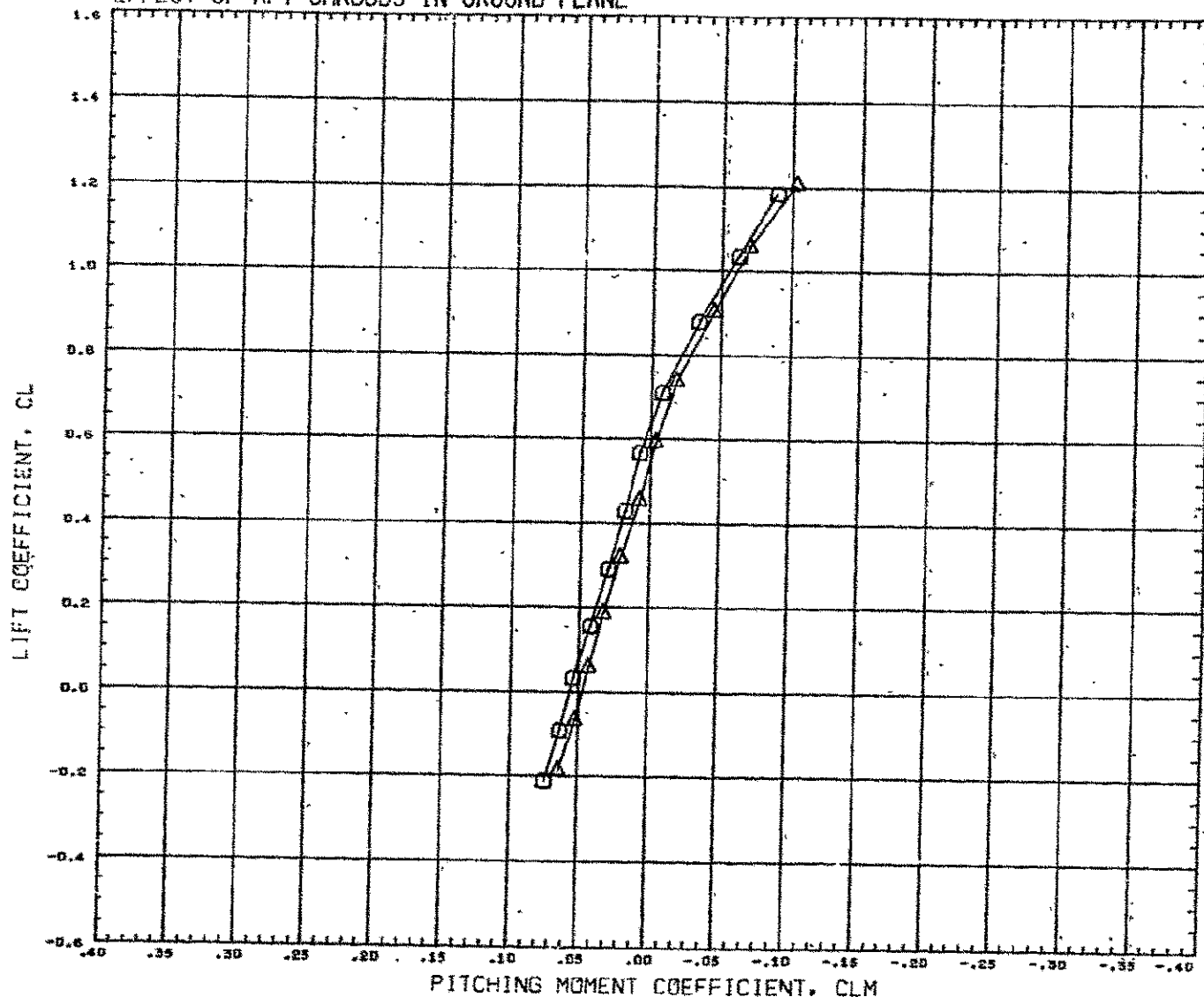
ELEVTR 0.000

EFFECT OF AFT SHROUDS IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(BCV600)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	0.000	0.000	10.000	SREF	380.3004 SQ. IN
(ACV614)	GDLST 587-1 B21X3V7C4W16G3E34 + GP DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150 IN.
						BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175
ELEVTR 0.000							

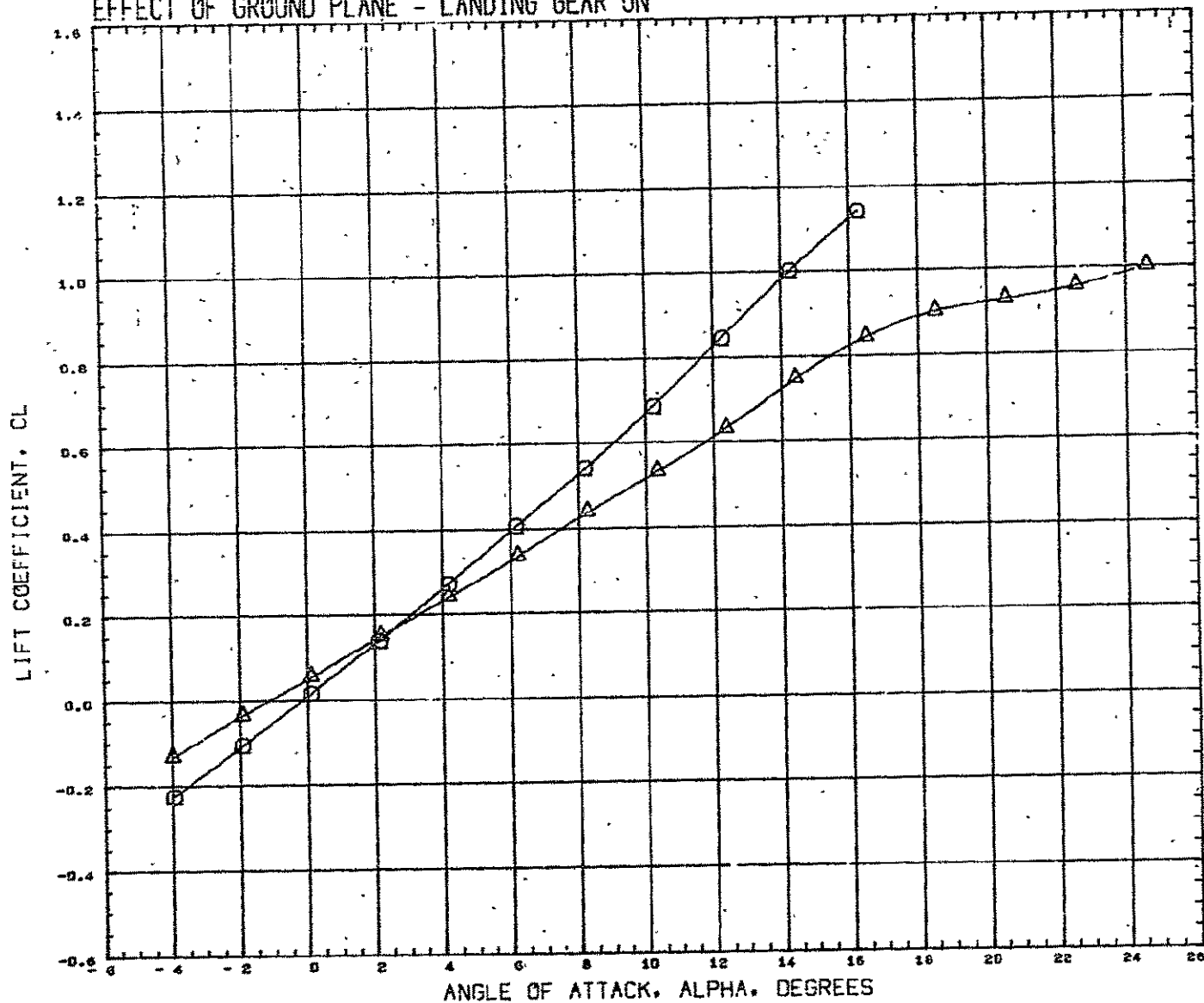
EFFECT OF AFT SHROUDS IN GROUND PLANE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	CANVT	REFERENCE INFORMATION	
(9CVG00)	QDLST 507-1 B21X1V7C4W10G3E34 + 6P DC = 10	0.000	0.000	0.000	10.000	SREF	380.3004 sq. IN
(9CVG14)	QDLST 507-1 B21X3V7C4W10G3E34 + 6P DC = 10	0.000	0.000	0.000	10.000	LREF	15.2150 IN.
						BREF	30.4400 IN.
						XWRP	33.4360 IN.
						YWRP	0.0000 IN.
						ZWRP	3.9380 IN.
						SCALE	0.0175

ELEVTR 0.000

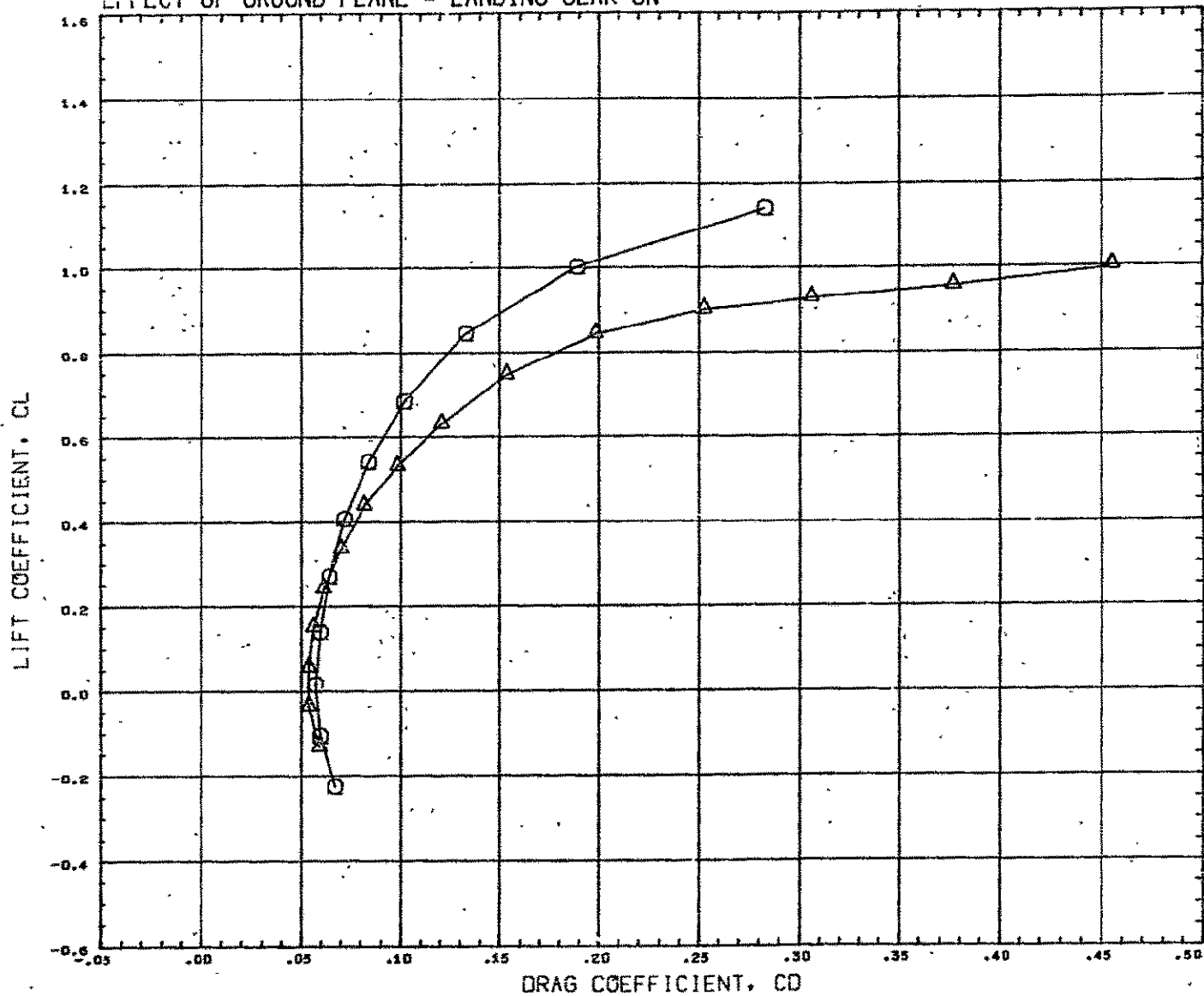
EFFECT OF GROUND PLANE - LANDING GEAR ON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(FCV009)	QDLST 587-1 021X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF	380.000 IN.
(BCV012)	QDLST 587-1 021X1V7C4E34W16G3 GEAR ON	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
						BREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

BETA 0.000

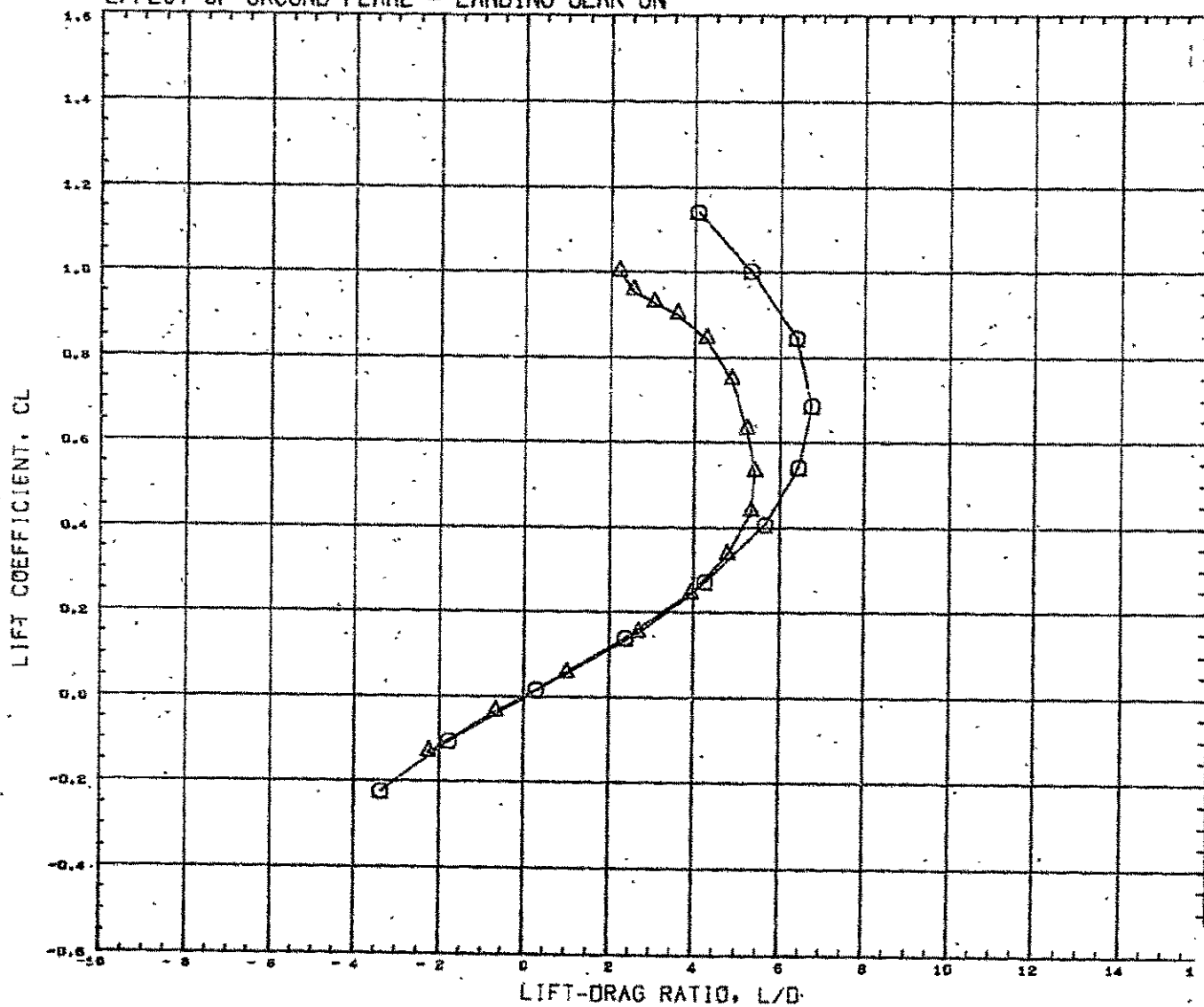
EFFECT OF GROUND PLANE - LANDING GEAR ON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(FCV609)	6DLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF	385.3004 SQ. IN
(BCV012)	6DLST 587-1 B21X1V7C4E34W16G3 GEAR ON	0.000	0.000	0.000	0.000	LRFP	15.2150 IN.
						BRFP	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

BETA 0.000

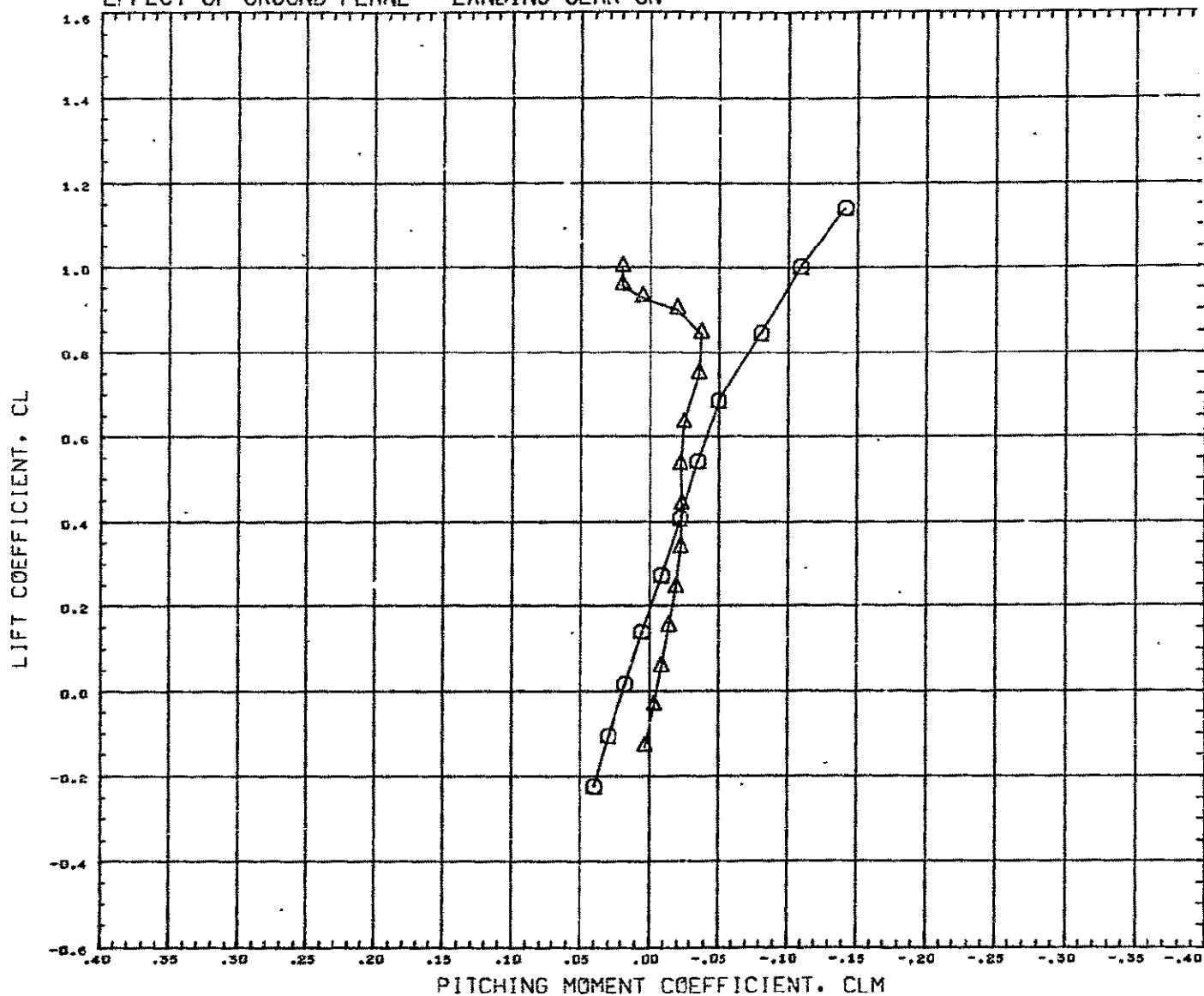
EFFECT OF GROUND PLANE - LANDING GEAR ON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(PCV000)	601ST 587-1	0.000	0.000	0.000	0.000	SREF	380.3004
(PCV012)	601ST 587-1	0.000	0.000	0.000	0.000	LREF	15.2150
	B21X1V7C4H16G3E34 * GP DC = 0					BREF	30.4400
	B21X1V7C4E34H16G3 GEAR ON					XMRP	33.4360
						YMRP	0.0000
						ZMRP	3.9380
						SCALE	0.0175

BETA 0.000

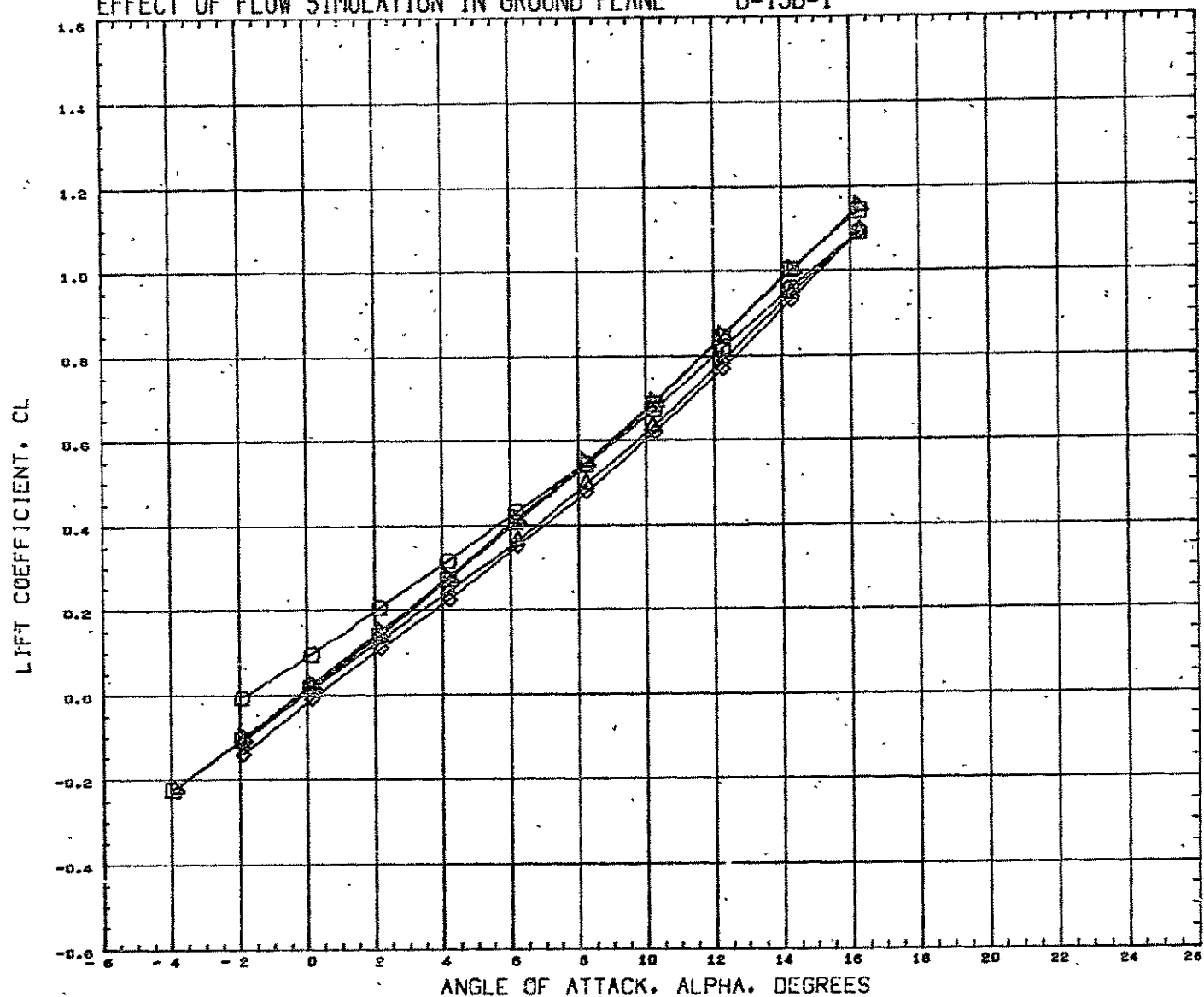
EFFECT OF GROUND PLANE - LANDING GEAR ON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	AILRON	RUDDER	CANVTR	REFERENCE INFORMATION	
(FCV009)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 0	0.000	0.000	0.000	0.000	SREF	360.3004 sq. IN
(BCV012)	GDLST 587-1 B21X1V7C4E34W16G3 GEAR ON	0.000	0.000	0.000	0.000	LREF	15.2150 IN.
						BREF	30.4400 IN.
						XHRP	33.4360 IN.
						YHRP	0.0000 IN.
						ZHRP	3.9360 IN.
						SCALE	0.0175

BETA 0.000

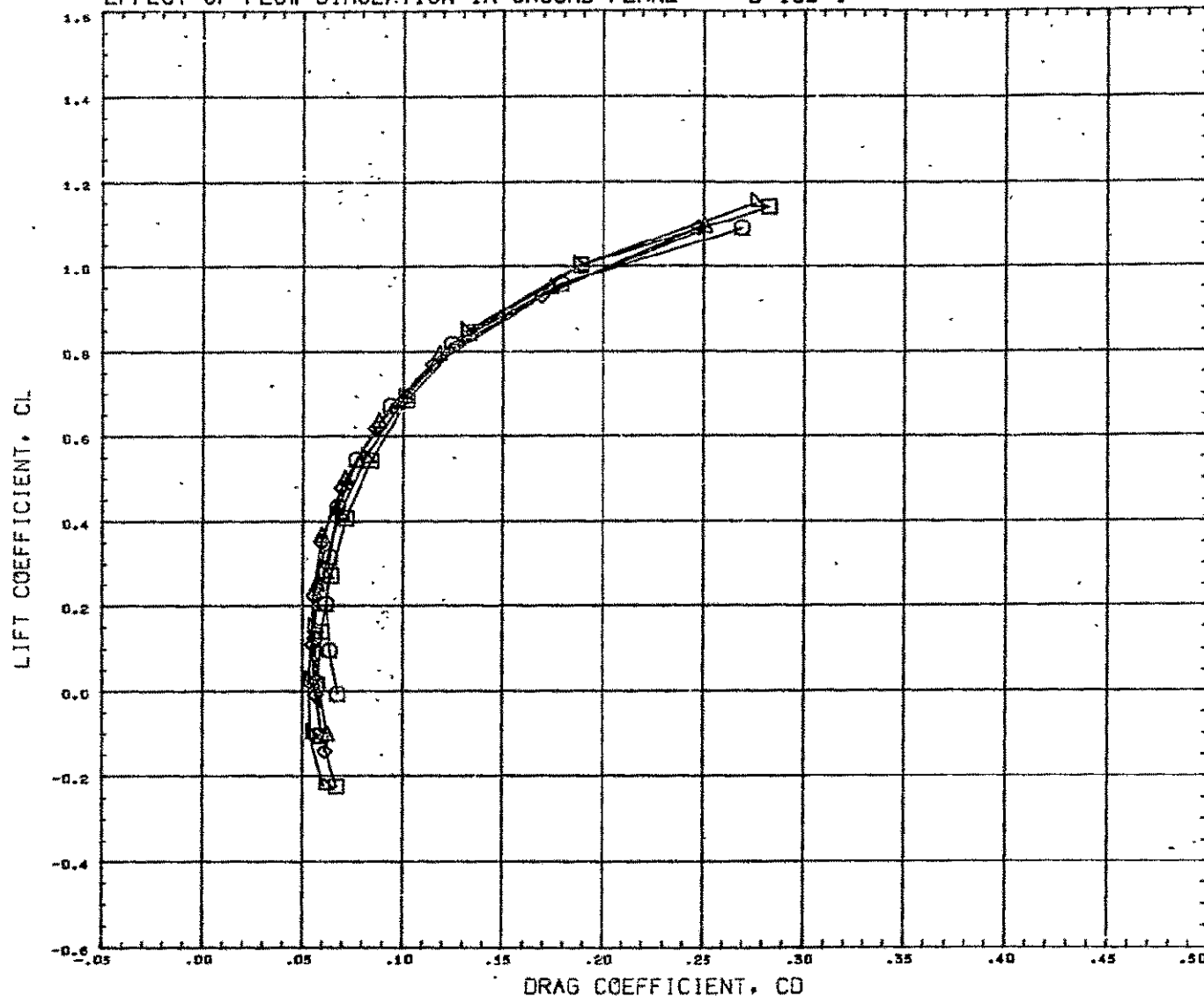
EFFECT OF FLOW SIMULATION IN GROUND PLANE B-15B-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECV6F1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC=0 DE=0	0.000	0.000	0.000	0.000	SREF	360.3904 SQ. IN
(FCV6F1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC=0 DE=0	0.000	0.520	0.000	0.000	LREF	15.2450 IN.
(ECV6F1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC=0 DE=0	0.000	0.620	0.000	0.000	BREF	30.4400 IN.
(ECV6G9)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC=0	0.000		0.000	0.000	XMRP	33.4360 IN.
(ECV6G2)	GDLST 587-1 B21X1V7C4W16G3 + GP DC=0	0.000		0.000	0.000	YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

NACH 0.201

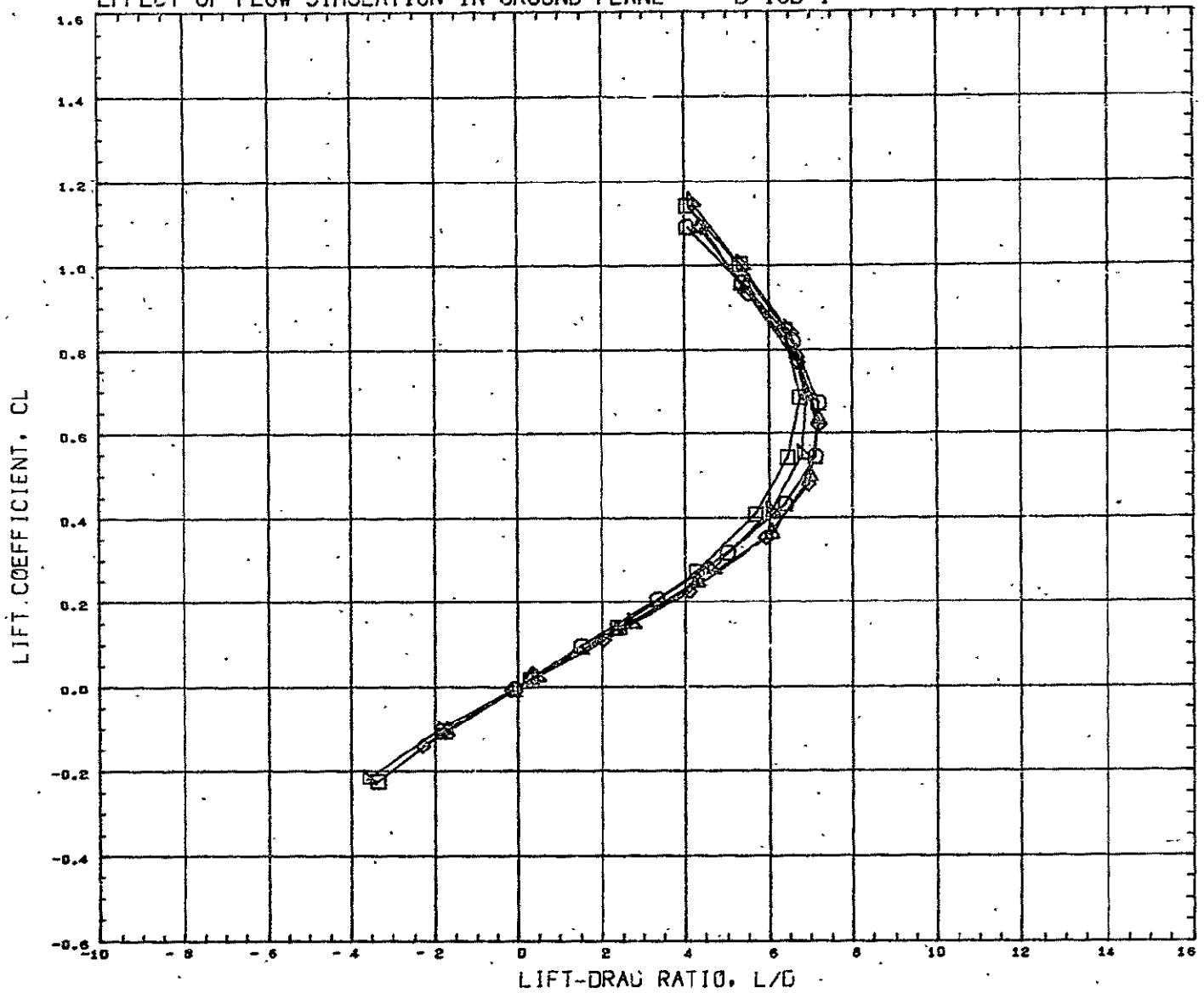
EFFECT OF FLOW SIMULATION IN GROUND PLANE B-15B-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECVGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.000	0.000	0.000	SREF 380.3004 S2. IN
(FCVGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.520	0.000	0.000	LREF 15.2150 IN.
(G2VGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.620	0.000	0.000	BREF 30.4400 IN.
(ECVG09)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 0	0.000		0.000	0.000	XMRP 33.4360 IN.
(ECVG02)	GDLST 587-2 B21X1V7C4W16G3 + GP DC= 0	0.000		0.000	0.000	YMRP 0.0000 IN.
						ZMRP 3.9300 IN.
						SCALE 0.0175

MACH 0.201

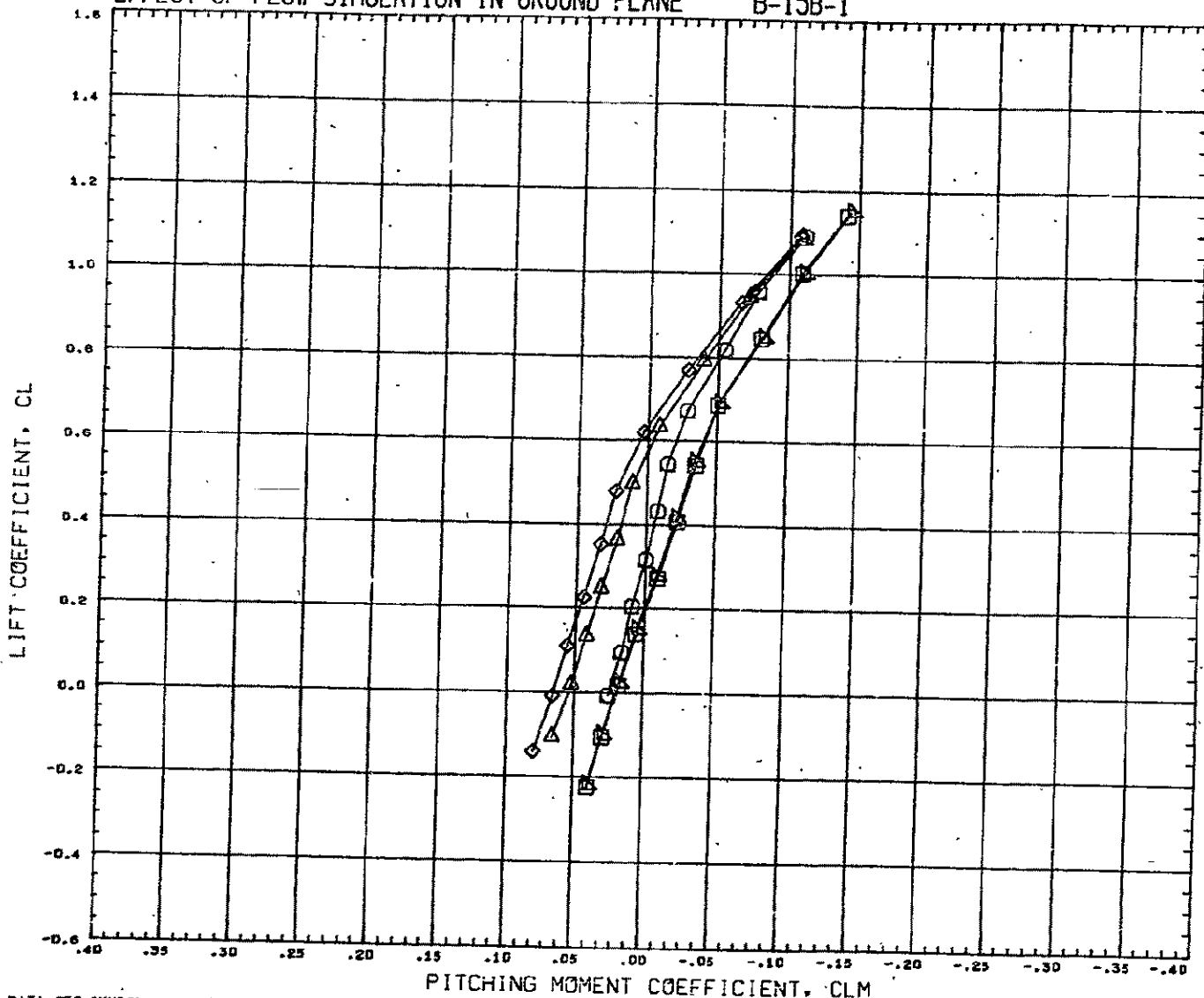
EFFECT OF FLOW SIMULATION IN GROUND PLANE B-15B-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECV6F1)	GDLST 587-1 B21X1V7C4W1663E35 + GP DC= 0 DE=0	0.000	0.000	0.000	0.000	SREF 380.3004 sq. IN
(FCV6F1)	GDLST 587-1 B21X1V7C4W1663E35 + GP DC= 0 DE=0	0.000	0.520	0.000	0.000	LREF 15.2150 IN.
(CCV6F1)	GDLST 587-1 B21X1V7C4W1663E35 + GP "C= 0 DE=0	0.000	0.620	0.000	0.000	BREF 50.4400 IN.
(ECV6D9)	GDLST 587-1 B21X1V7C4W1663E34 + GP DC= 0	0.000		0.000	0.000	XMRP 33.4360 IN.
(ECV6D2)	GDLST 587-1 B21X1V7C4W1663 + GP DC= 0	0.000		0.000	0.000	YMRP 0.0000 IN.
						ZMRP 3.9780 IN.
						SCALE 0.0175

MACH 0.201

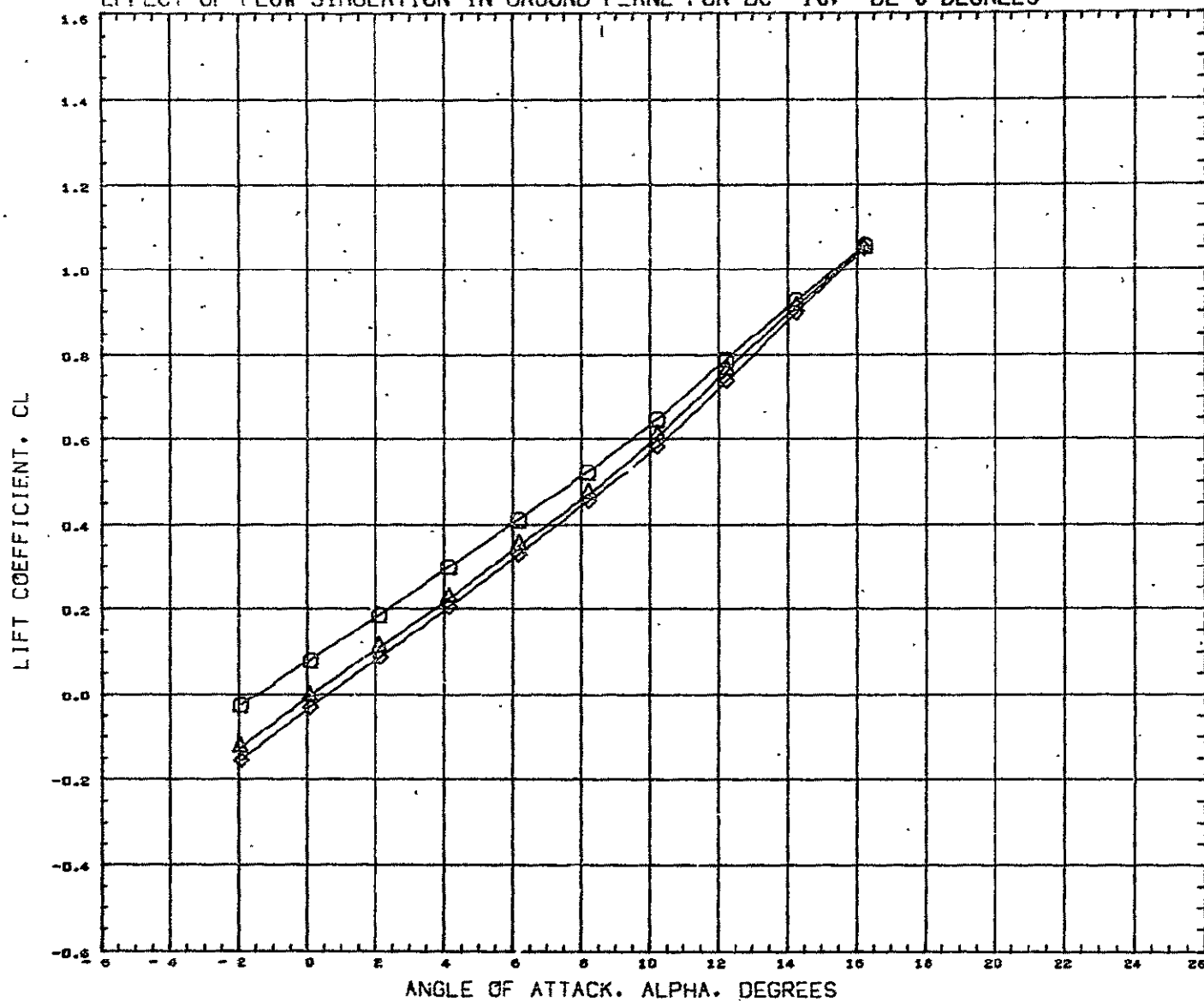
EFFECT OF FLOW SIMULATION IN GROUND PLANE B-15B-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECVGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(FCVGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.520	0.000	0.000	LREF 15.2150 IN.
(CCVGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	3.000	0.620	0.000	0.000	BREF 30.4400 IN.
(ECVG09)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 0	0.000	0.000	0.000	0.000	XHRP 33.4360 IN.
(ECVG02)	GDLST 587-1 B21X1V7C4W16G3 + GP DC= 0	0.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 3.9360 IN.
						SCALE 0.0175

MACH 0.201

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=-10, DE=0 DEGREES



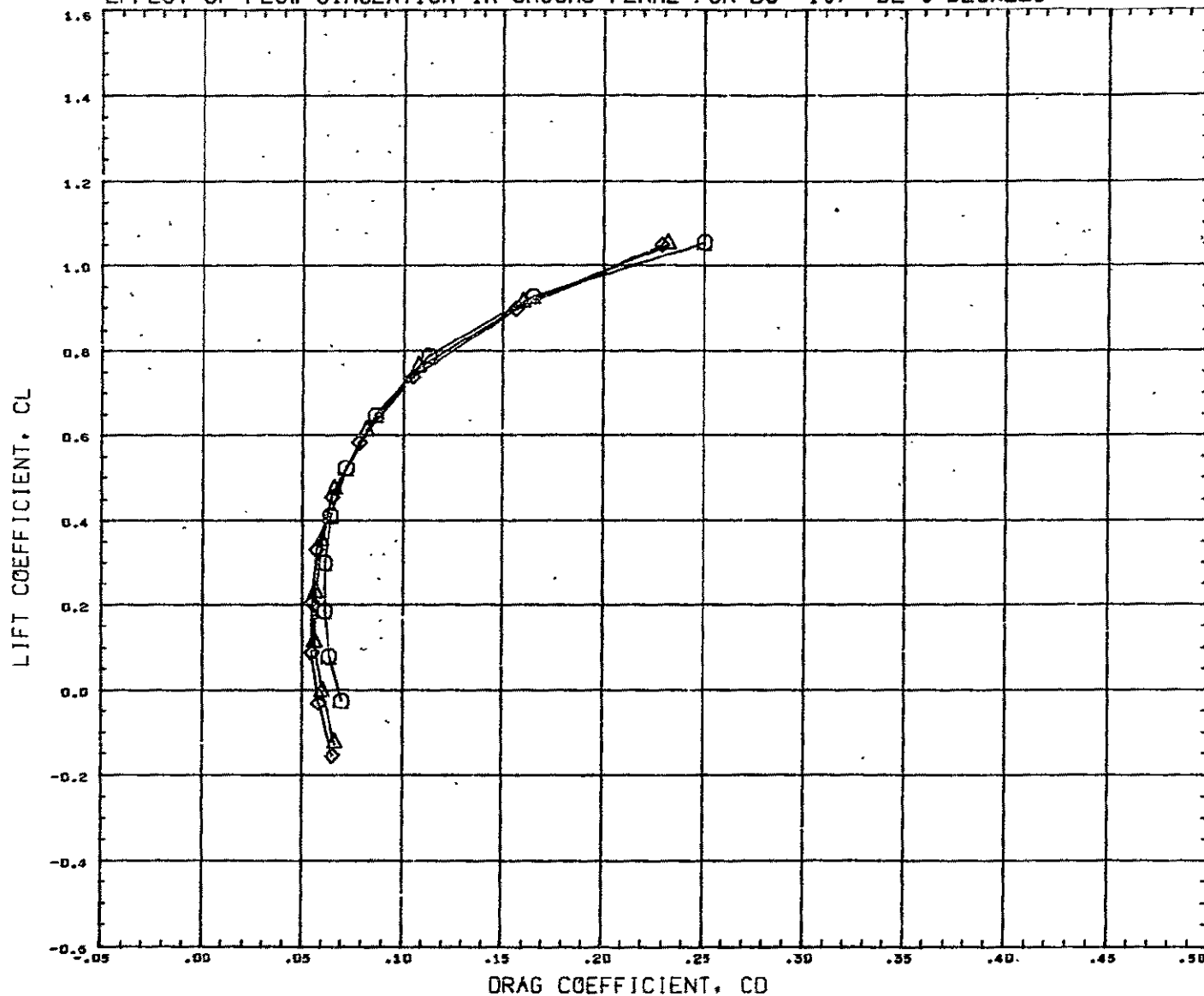
SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	-10.000
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	360.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-1 B21X1V7C4W16G3E35 + GP DC=-10 DE=0 (ACVGF2) 24 JUL 71 PAGE 005

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=-10, DE=0 DEGREES

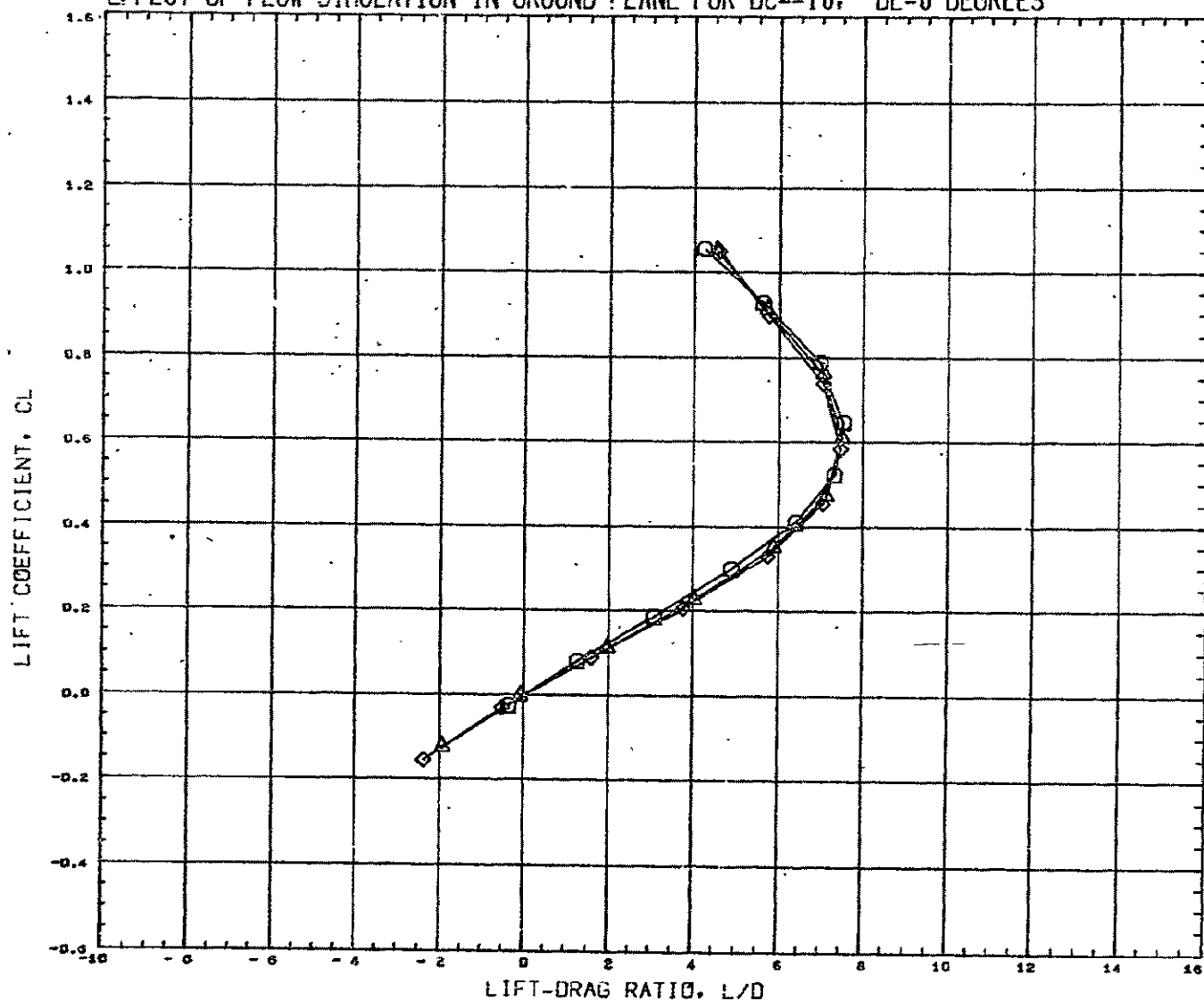


SYMBOL	FLOW	PARAMETRIC VALUES				REFERENCE INFORMATION	
○	0.000	BETA	0.000	MACH	0.201	SREF	380.3004 SQ. IN
△	0.320	RUDDER	0.000	ELEVTR	0.000	LREF	15.2150 IN.
◇	0.620	AILRON	0.000	CANVTR	- 10.000	BREF	30.4400 IN.
		CANRON	6.000			XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

DATA HIST. CODE MVV

GDLST 587-1 B21X1V7C4W16G3E35 + GP DC=-10 DE=0 (ACVGF2) 24 JUL 71 P/ GF 206

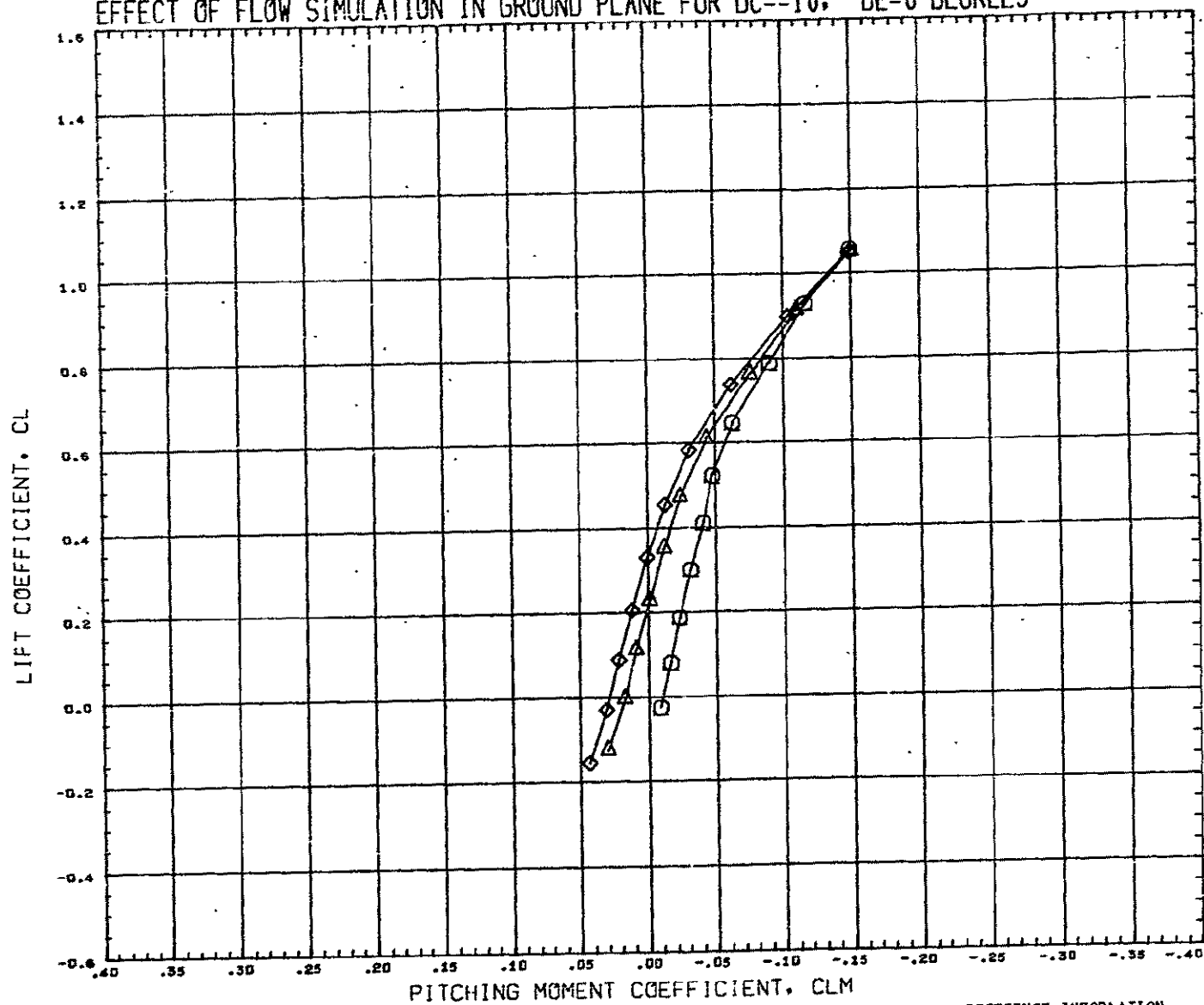
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=-10, DE=0 DEGREES



SYMBOL	FLOW	PARAMETRIC VALUES				REFERENCE INFORMATION	
○	0.000	BETA	0.000	MACH	0.201	SREF	380.3024 SQ. IN
△	0.520	RUDDER	0.000	ELEVTR	0.000	LREF	15.2150 IN.
◇	0.620	AILRON	0.000	CANVTR	-16.000	BREF	30.4400 IN.
		CANRON	0.000			XHRP	33.4360 IN.
						YHRP	0.0000 IN.
						ZHRP	3.9380 IN.
						SCALE	0.0175

DATA HIST. CODE MVV

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=-10, DE=0 DEGREES



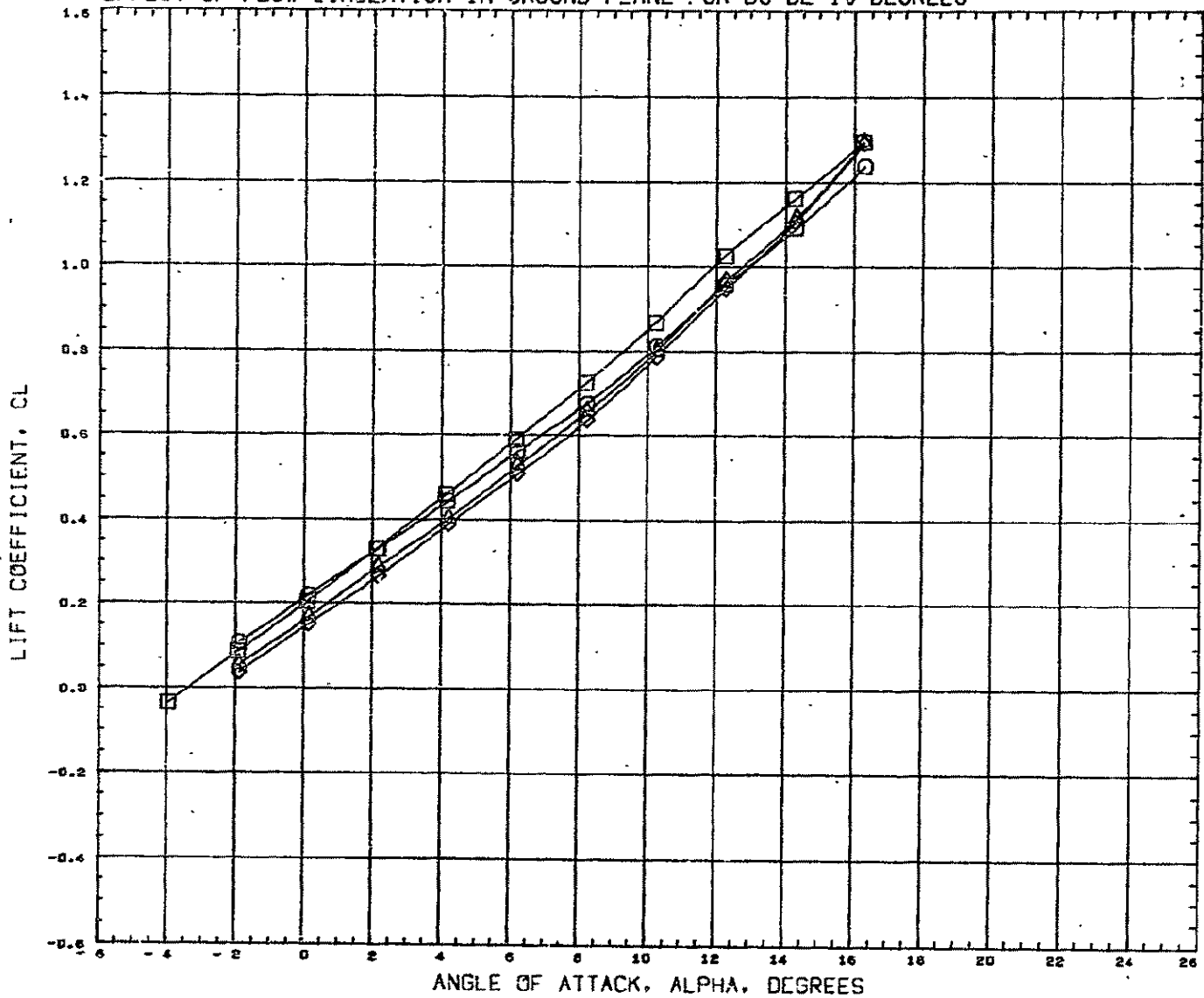
SYMBOL	FLOW	PARAMETRIC VALUES			
	0.000	BETA	0.000	MACH	0.201
	0.520	RUDDER	0.000	ELEVTR	0.000
	0.620	AILRON	0.000	CANVTR	-10.000
		CANROW	0.000		

REFERENCE INFORMATION		
SREF	300.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

GDLS 587-1 B21X1V7C4W16G3E35 + GP DC=-10 DE=0 (ACVGF2) 24 JUL 71 PAGE 208

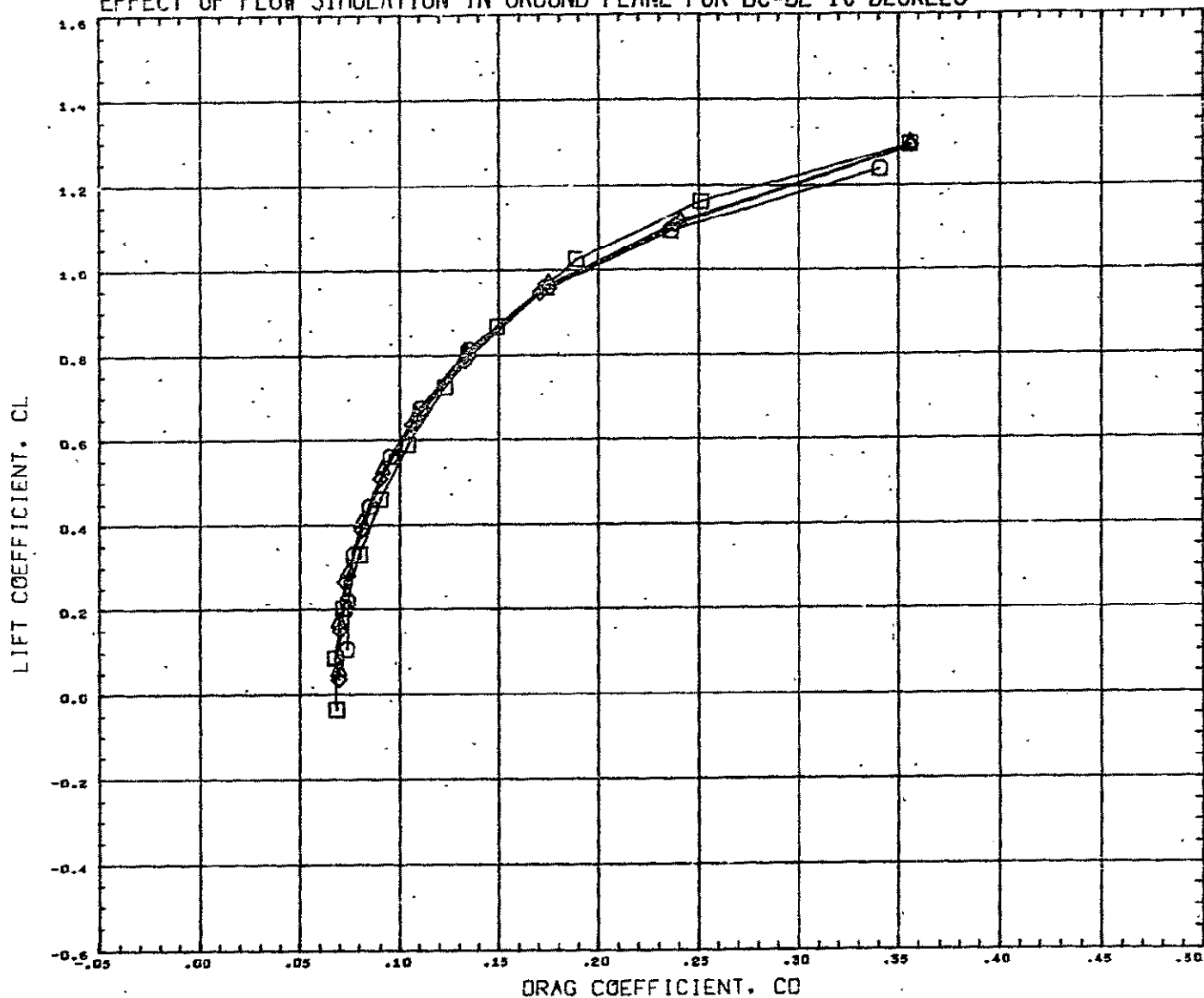
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=DE=10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECV6F3)	GDLST 587-1 B21X1V7C4M16G3E35 + GP DC= 10 DE=10	0.000	0.000	10.000	10.000	SREF	380.5004 IN.
(FCV6F3)	GDLST 587-1 B21X1V7C4M16G3E35 + GP DC= 10 DE=10	0.000	0.520	10.000	10.000	LREF	15.2150 IN.
(GCV6F3)	GDLST 587-1 B21X1V7C4M16G3E35 + GP DC= 10 DE=10	0.000	0.620	10.000	10.000	BREF	30.4400 IN.
(JCV608)	GDLST 587-1 B21X1V7C4M16G3E34 + GP DC = 10	0.000		10.000	10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9382 IN.
						SCALE	0.0175

HACH 0.201

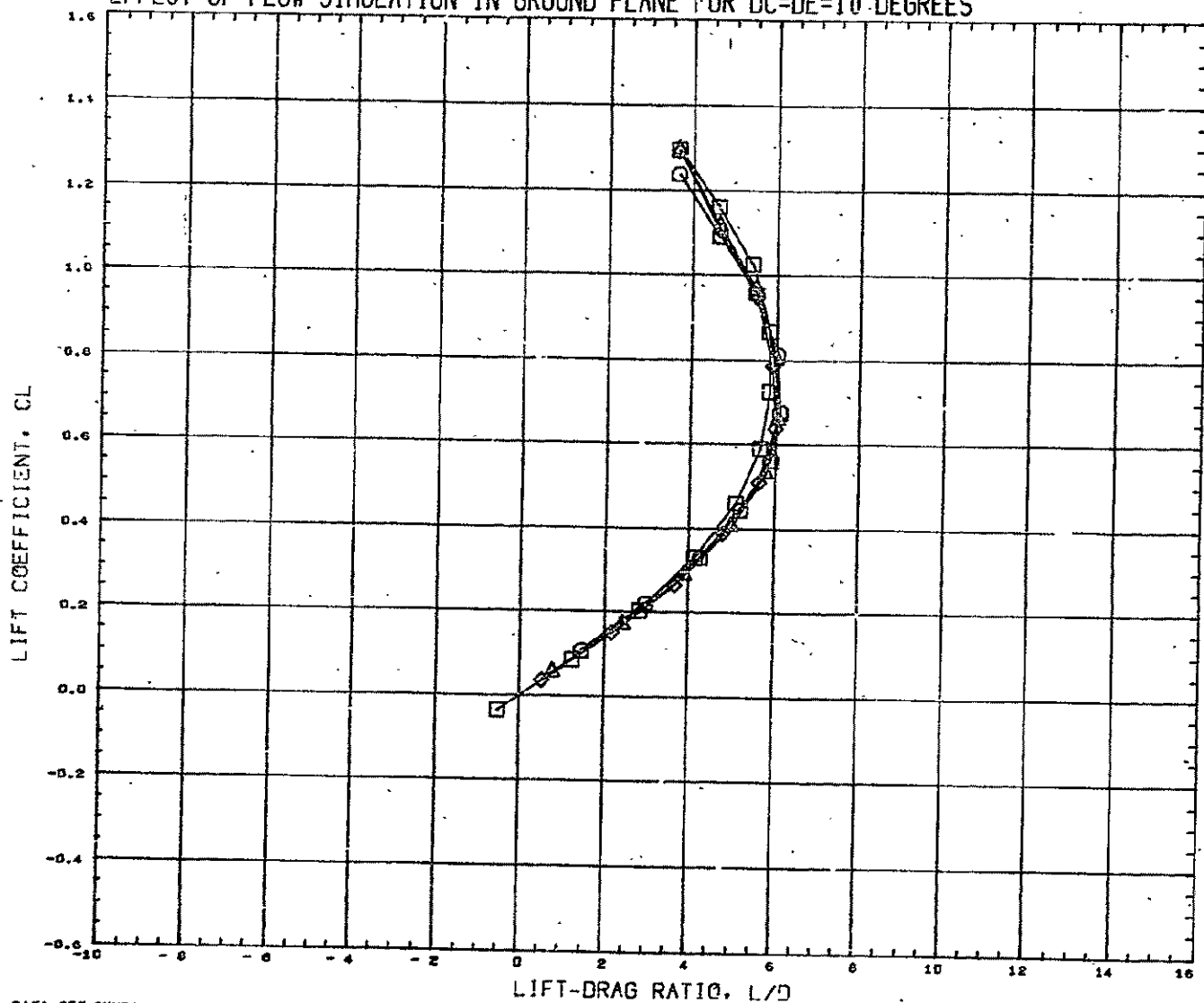
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=DE=10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVGF3)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.000	10.000	10.000	SREF	380.3004 Sq. IN
(FCVGF3)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.520	10.000	10.000	LREF	15.2150 IN.
(GCVGF3)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.620	10.000	10.000	BREF	30.4400 IN.
(JCVG08)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000		10.000	10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

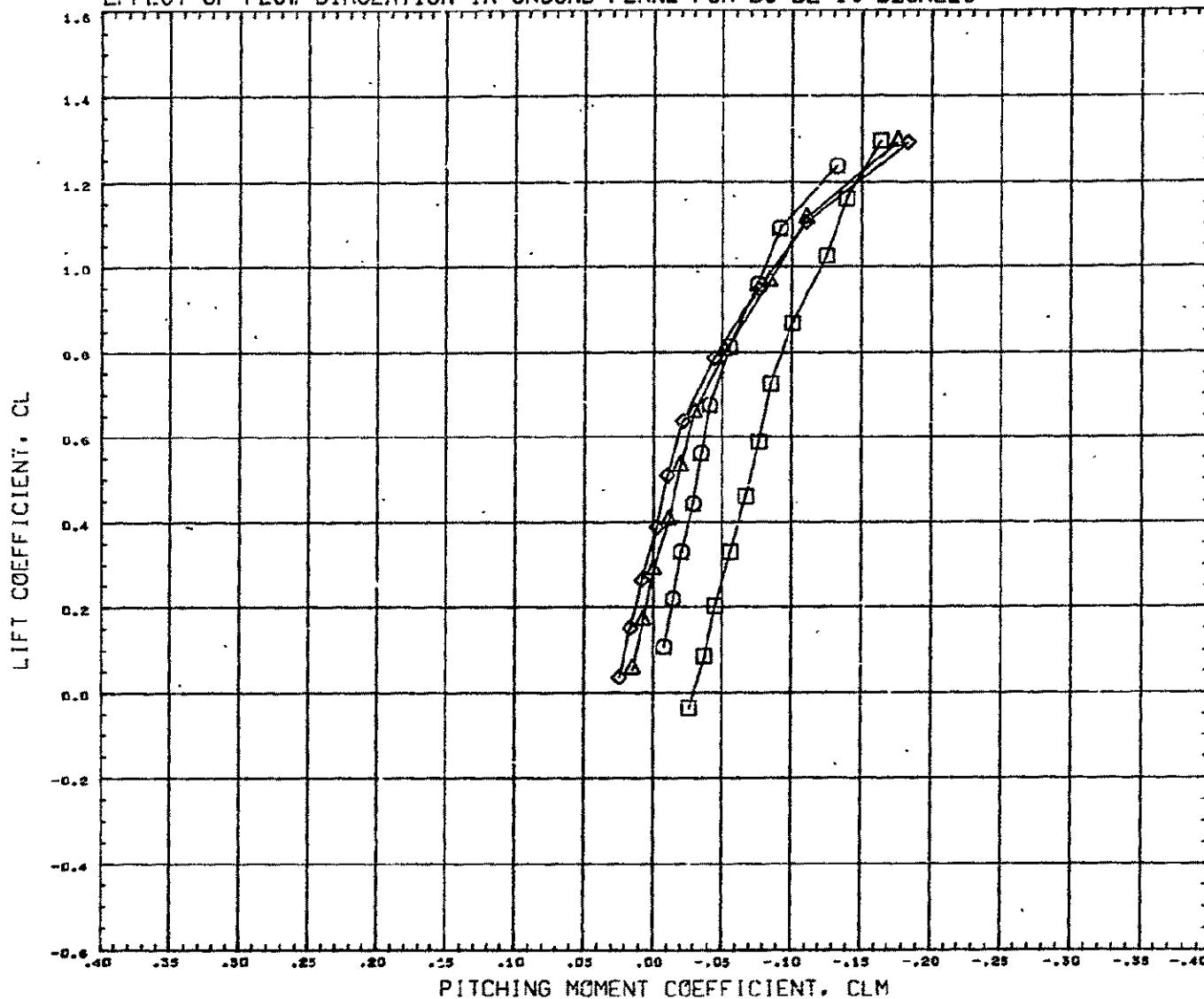
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=DE=10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVGF3)	GDLST 567-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.000	10.000	10.000	SREF	580.3064 Sq. IN
(FCVGF3)	GDLST 567-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.920	10.000	10.000	LREF	15.2150 IN.
(GCVGF3)	GDLST 567-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.620	10.000	10.000	BREF	30.4400 IN.
(JCVGD8)	GDLST 567-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		10.000	10.000	XMRP	35.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	5.9380 IN.
						SCALE	0.0175

MACH 0.201

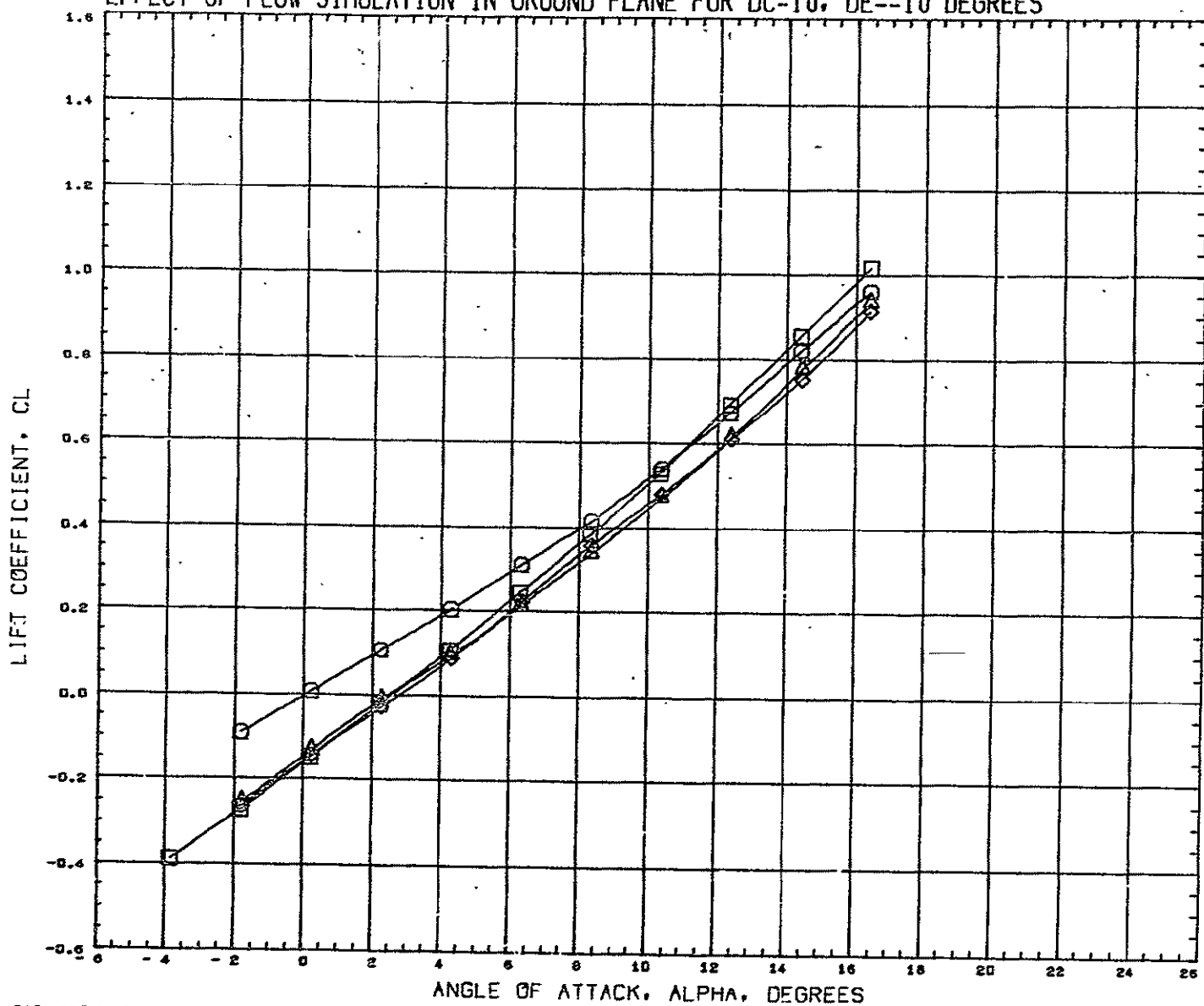
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=DE=10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVGF3)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.000	10.000	10.000	SREF	300.3004 SQ. IN.
(FCVGF3)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.520	10.000	10.000	LREF	15.2150 IN.
(PCVGF3)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.620	10.000	10.000	BREF	30.4400 IN.
(JCVGF3)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		10.000	10.000	XHRP	33.4360 IN.
						YHRP	0.0000 IN.
						ZHRP	3.9380 IN.
						CMAC	0.0175

MACH 0.201

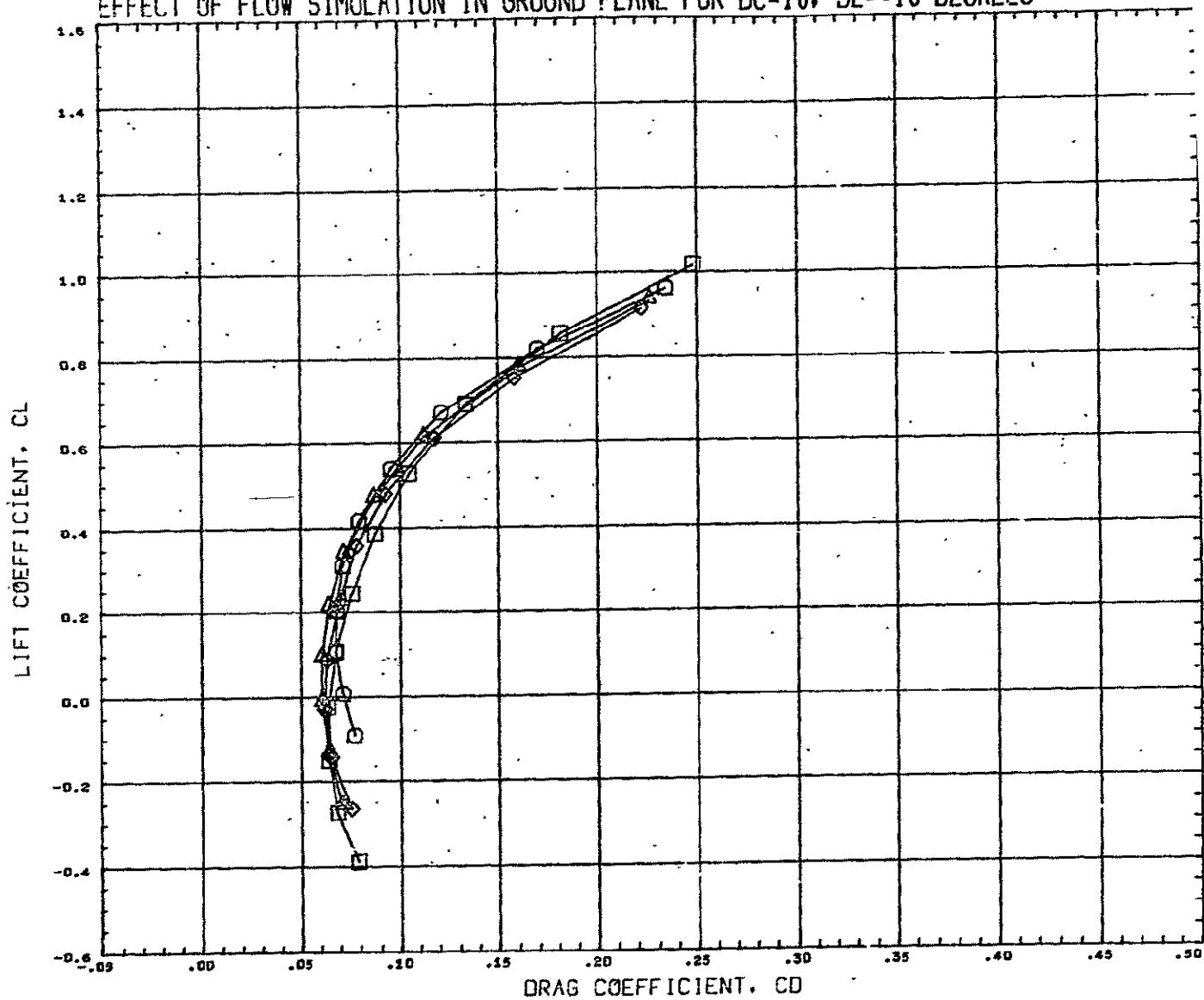
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=-10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECVGF4)	GDLST 587-1 D21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.050	0.000	-10.000	10.000	SREF 380.3004 SQ. IN
(FCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.520	-10.000	10.000	LREF 15.2150 IN.
(GCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.620	-10.000	10.000	BREF 30.4400 IN.
(HCVG08)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		-10.000	10.000	XNRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZNRP 3.9380 IN.
						SCALE 0.0175

NACH 0.201

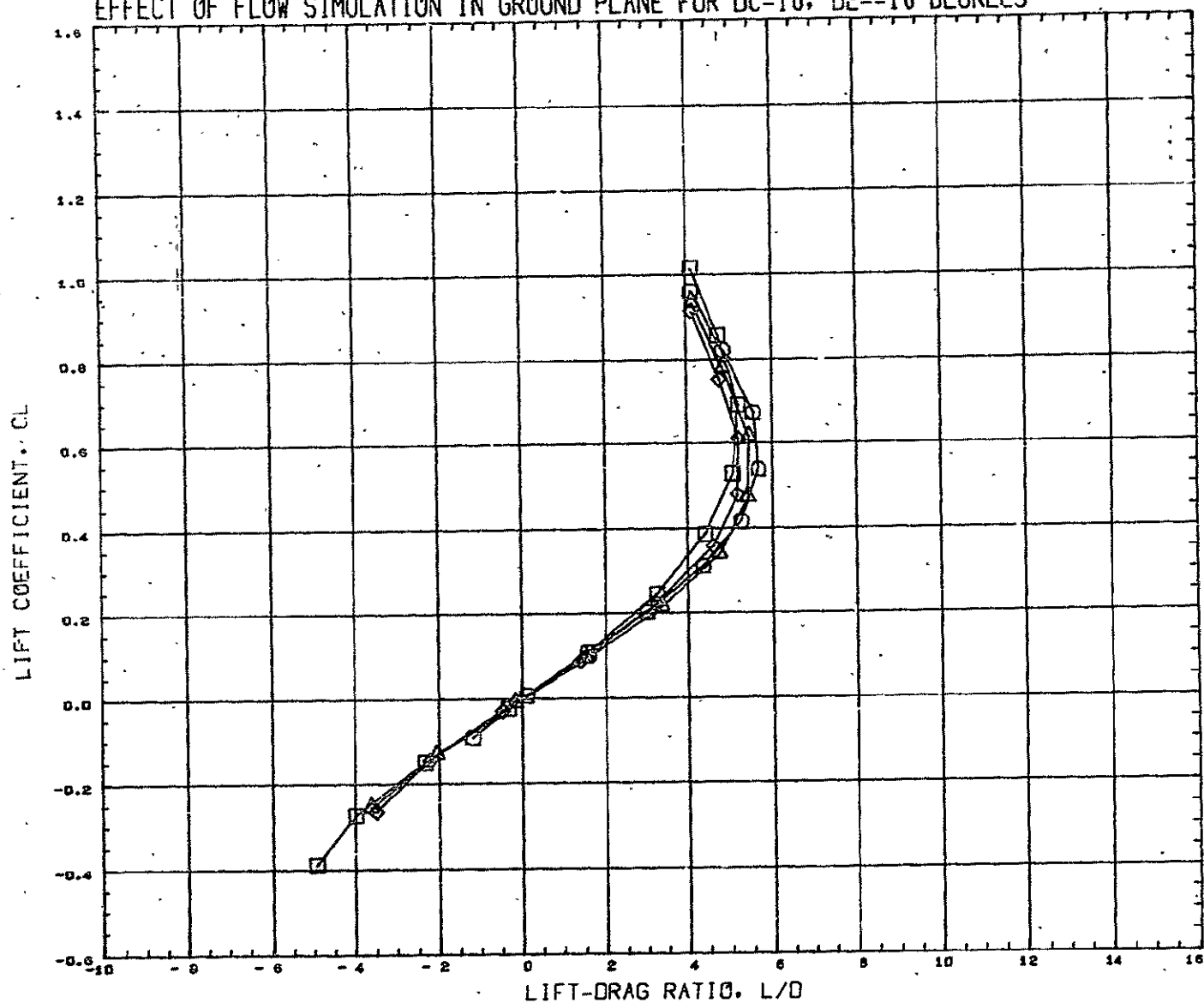
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=-10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.000	-10.000	10.000	SREF 380.3004 SQ. IN
(FCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.520	-10.000	10.000	LREF 15.2150 IN.
(CCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.620	-10.000	10.000	DREF 30.4400 IN.
(HCVGB8)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		-10.000	10.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.251

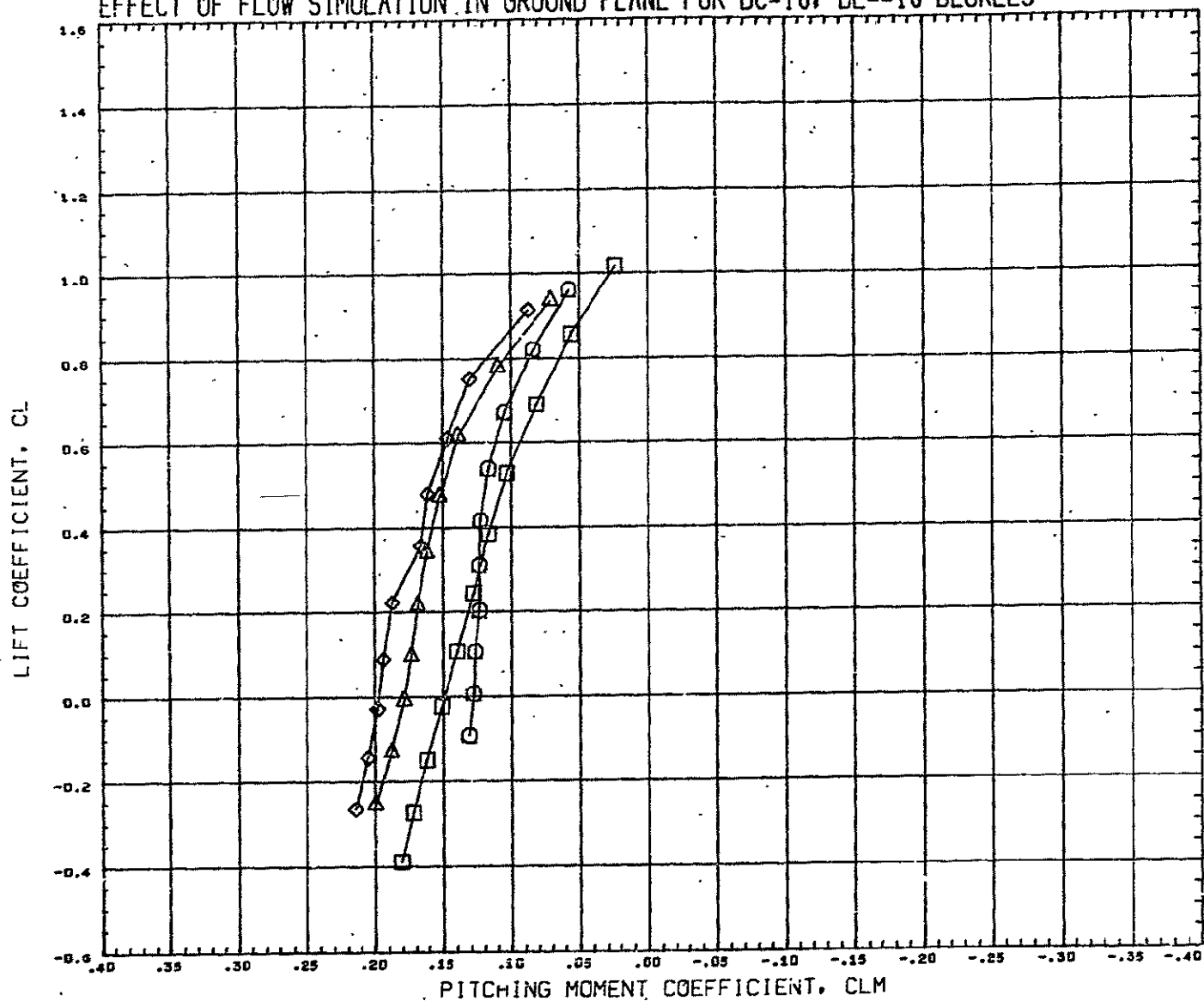
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=-10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION		
(ECVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.000	-10.000	10.000	SREF	380.3004	sq. IN
(FCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.520	-10.000	10.000	LREF	15.2150	IN.
(GCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.620	-10.000	10.000	BREF	30.4400	IN.
(HCVG08)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000		-10.000	10.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

MACH 0.201

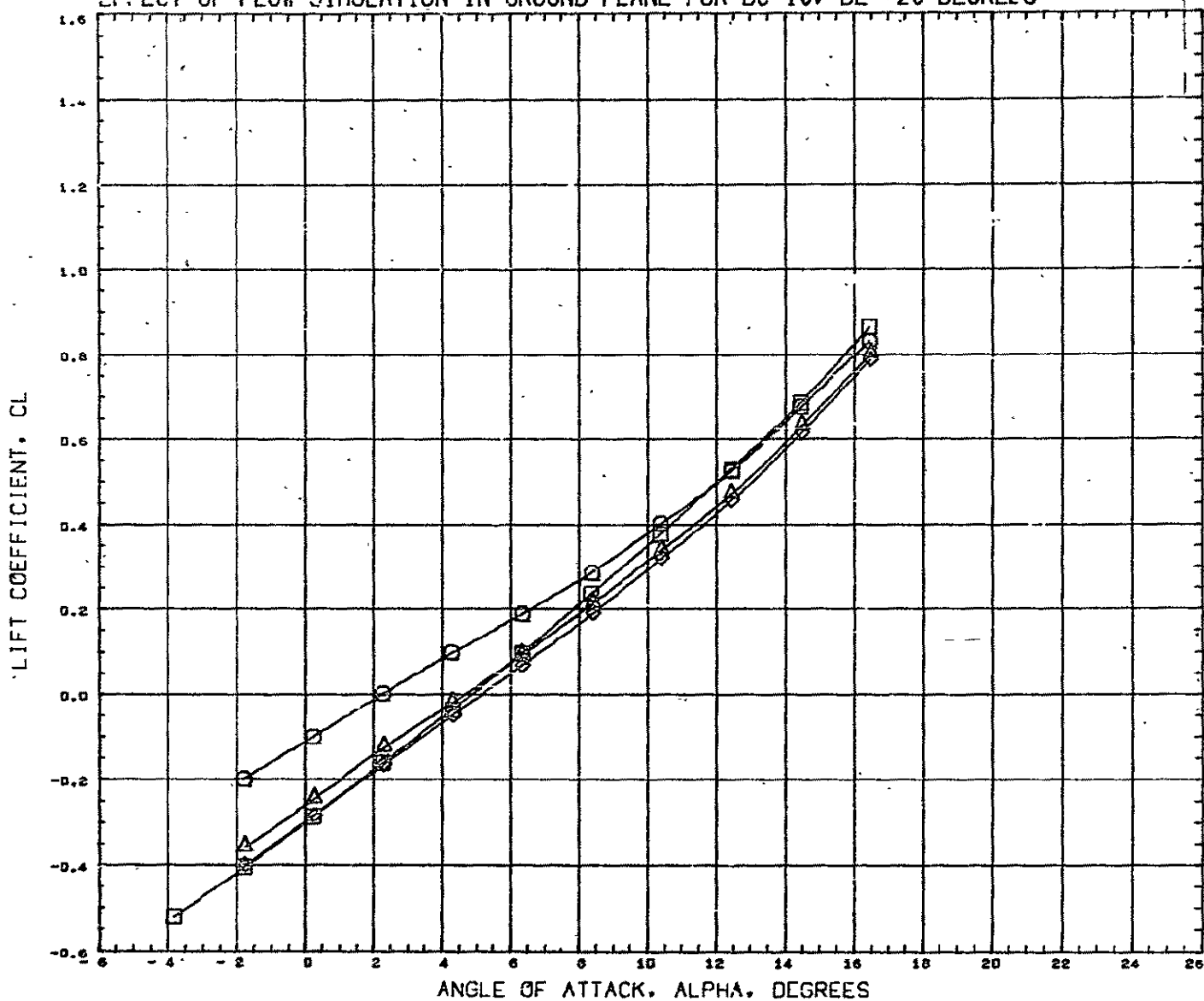
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=-10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(FCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.000	-10.000	10.000	SREF	380.3004 SQ. IN
(FCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DL= 10 DE=-10	0.000	0.520	-10.000	10.000	LREF	15.2150 IN.
(FCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	3.620	-10.000	10.000	BREF	30.4400 IN.
(FCVGF4)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000		-10.000	10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

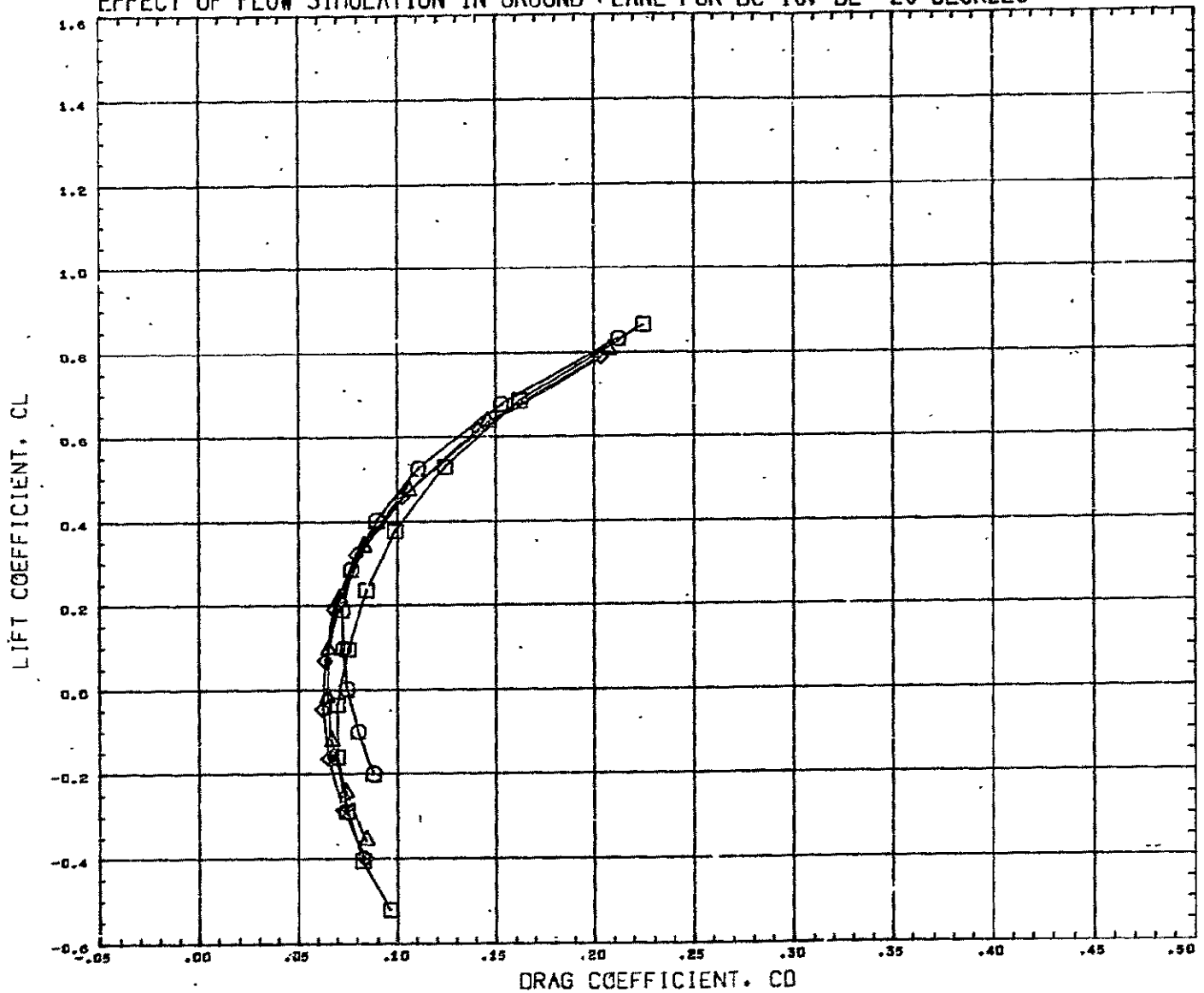
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=-20 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVGF5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.000	-20.000	10.000	SREF	380.3004 SQ. IN
(FCVGF5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.520	-20.000	10.000	LREF	15.2150 IN.
(CCVGF5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.620	-20.000	10.000	BREF	30.4400 IN.
(CCVGF5)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		-20.000	10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

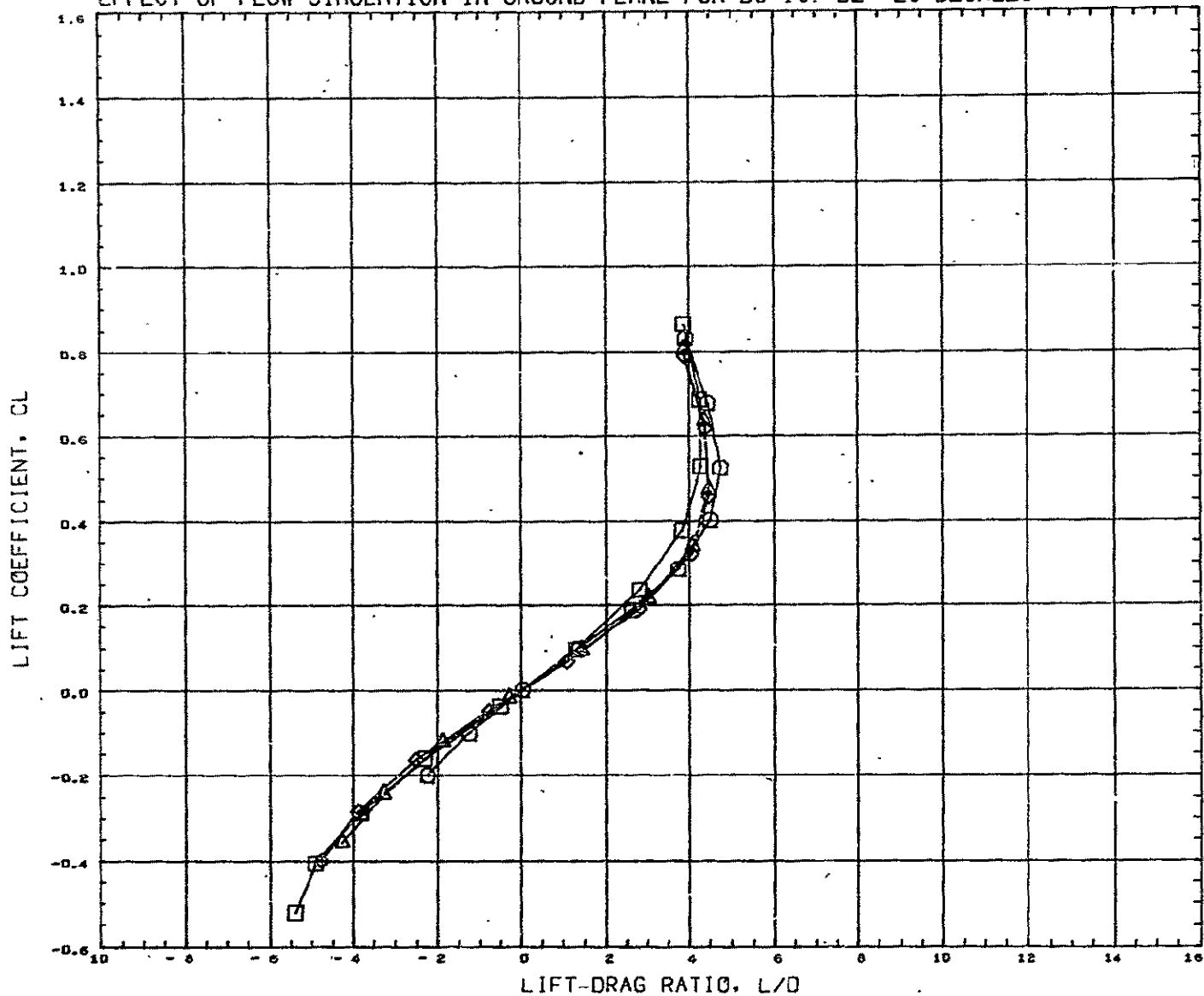
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=-20 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECVGF5)	GDLSY 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.000	-20.000	10.000	SREF 380.3004 SQ. IN
(FCVGF5)	GDLSY 587-1 B21X1V7C4W16G3E34 + GP DC= 10 DE=-20	0.000	0.520	-20.000	10.000	LREF 15.2150 IN.
(GCVGF5)	GDLSY 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.620	-20.000	10.000	BREF 30.4400 IN.
(GCVG08)	GDLSY 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		-20.000	10.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

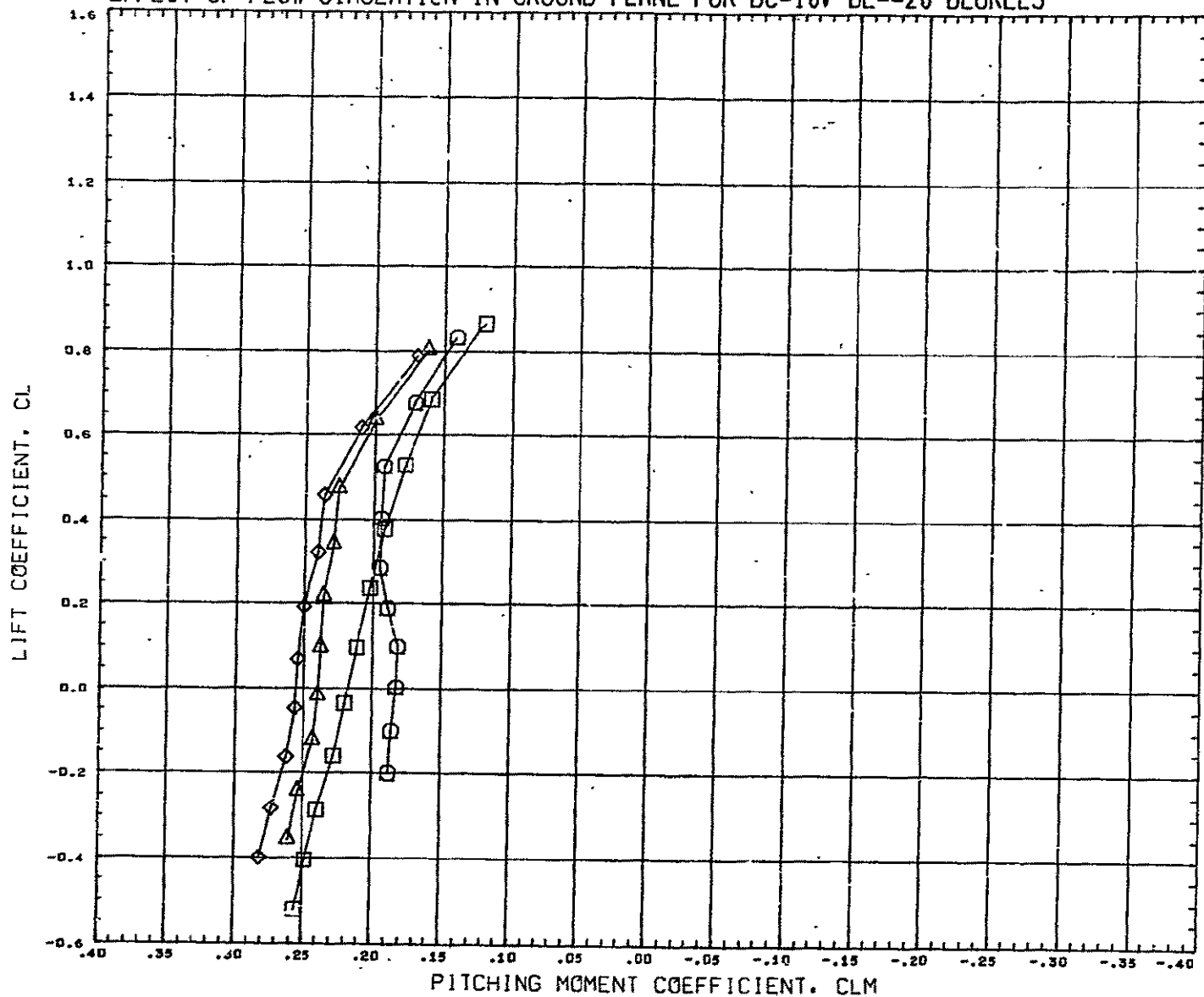
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=-20 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECV6F5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.000	-20.000	10.000	SREF	380.3004 SQ. IN
(FCV6F5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.520	-20.000	10.000	LREF	15.2150 IN.
(GCJ6F5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP LC= 10 DE=-20	0.000	0.600	-20.000	10.000	BREF	30.4400 IN.
(GCV6D8)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		-20.000	10.000	XHRP	33.4360 IN.
						YHRP	0.0000 IN.
						ZHRP	5.9380 IN.
						SCALE	0.0175

MACH 0.205

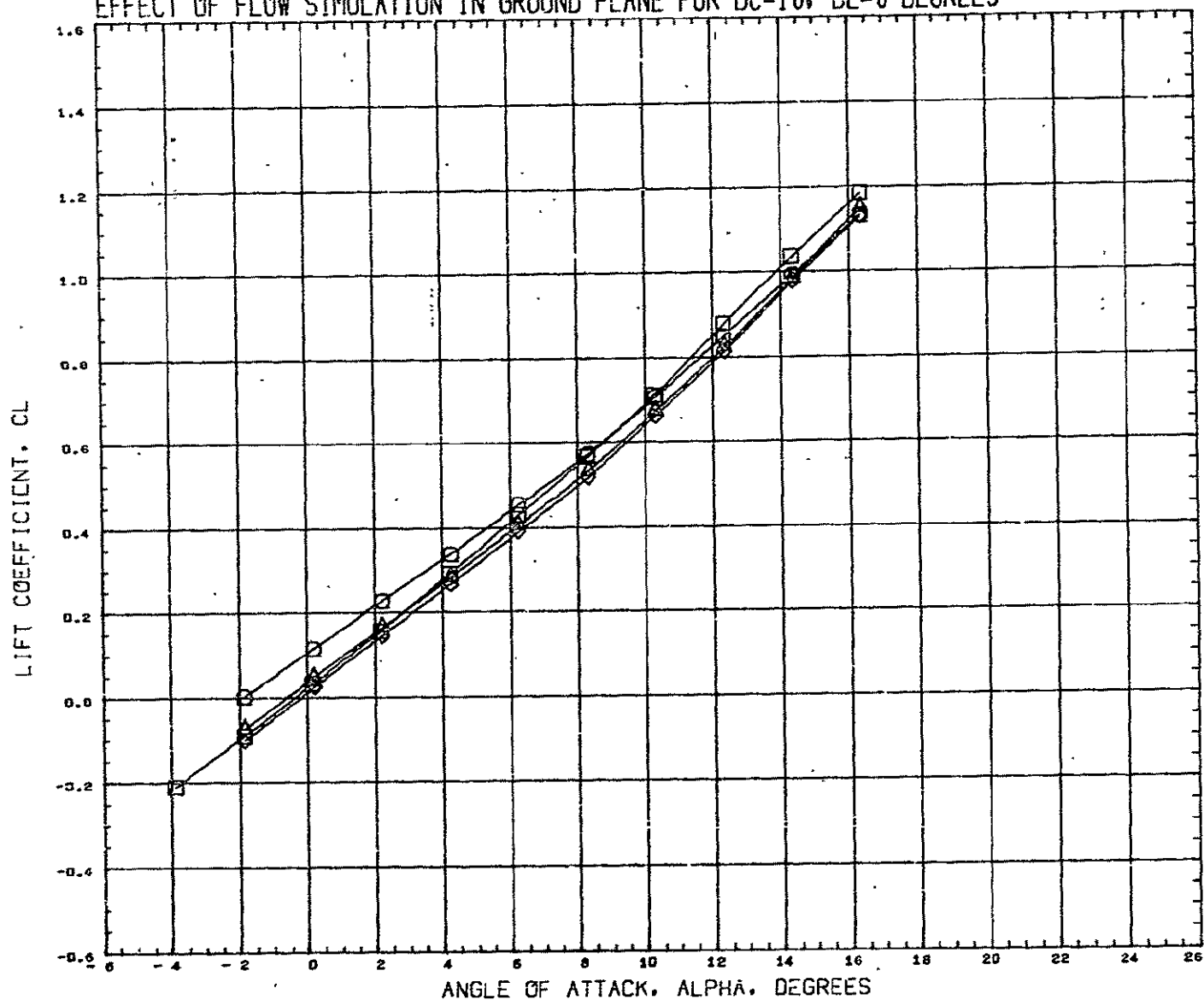
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=-20 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
ECVGF5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.000	-29.000	10.000	SREF	380.3004 SQ. IN
FCVGF5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.520	-20.000	10.000	LREF	15.2150 IN.
CCVGF5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.520	-20.000	10.000	BREF	30.4400 IN.
CCVGD8)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		-29.000	10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

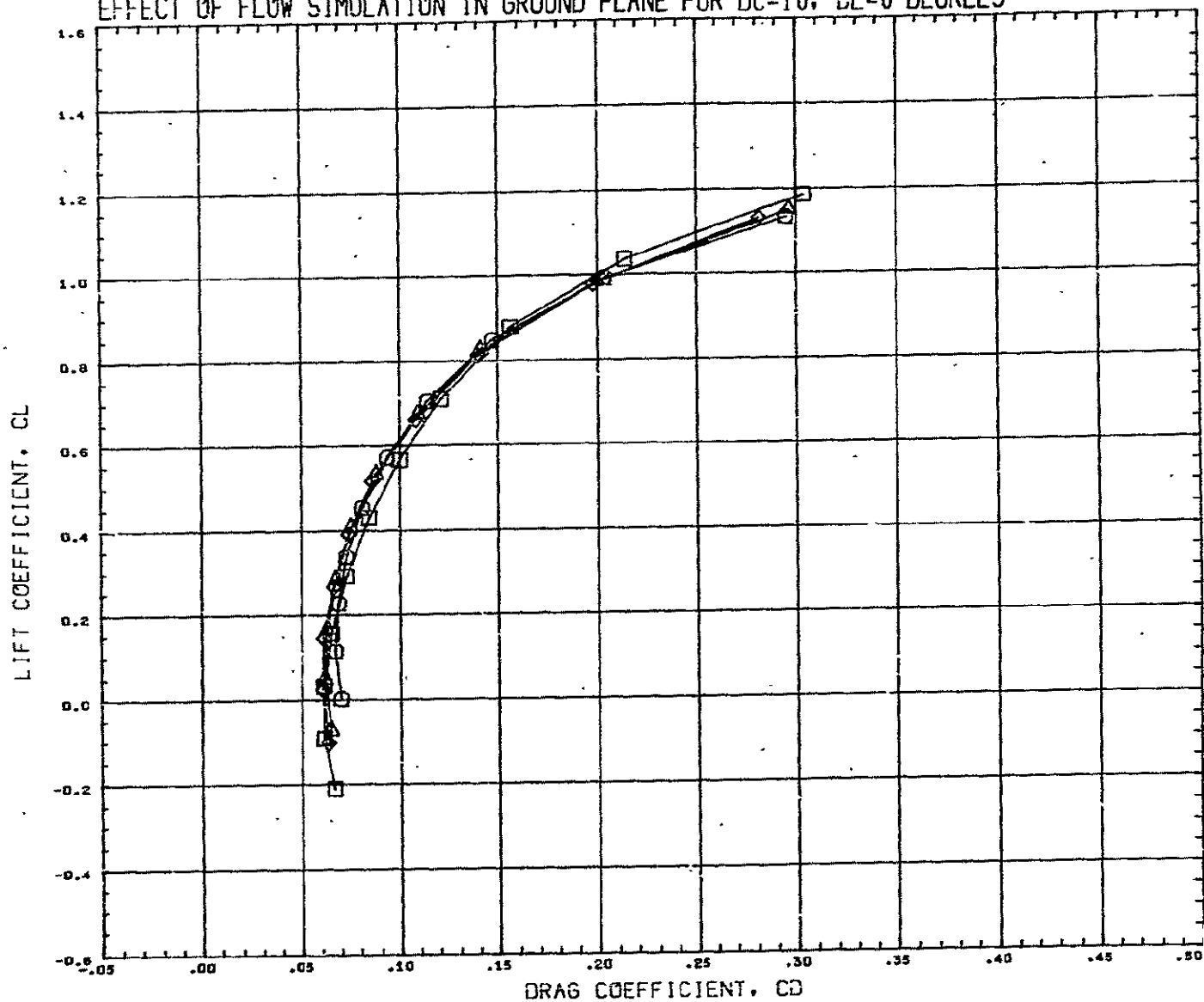
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANYTR	REFERENCE INFORMATION	
(ECVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.000	0.000	10.000	SREF	300.3004 SQ. IN.
(FCVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.520	0.000	10.000	LREF	15.2150 IN.
(GCVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF	30.4400 IN.
(KCVGD6)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		0.000	10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=0 DEGREES



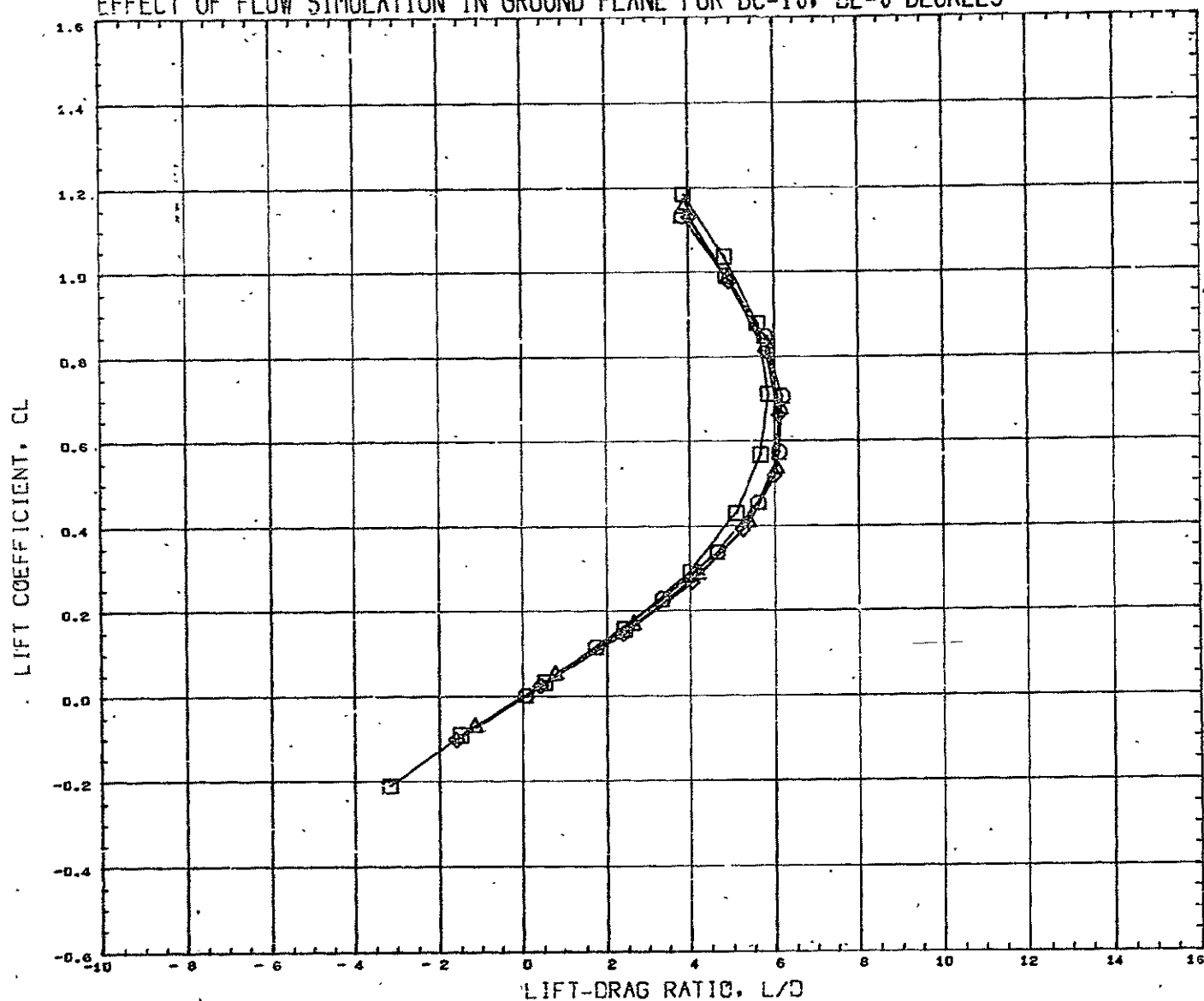
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ECVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0
(FCVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0
(GCVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0
(KCVGF6)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10

BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
0.000	0.000	0.000	10.000	SREF 380.3004 SQ. IN
0.000	0.520	0.000	10.000	LREF 15.2150 IN.
0.000	0.620	0.000	10.000	BREF 30.4400 IN.
0.000	0.000	0.000	10.000	XWRP 33.4360 IN.
				YWRP 0.0000 IN.
				ZWRP 3.9380 IN.
				SCALE 0.0175

MACH 0.201

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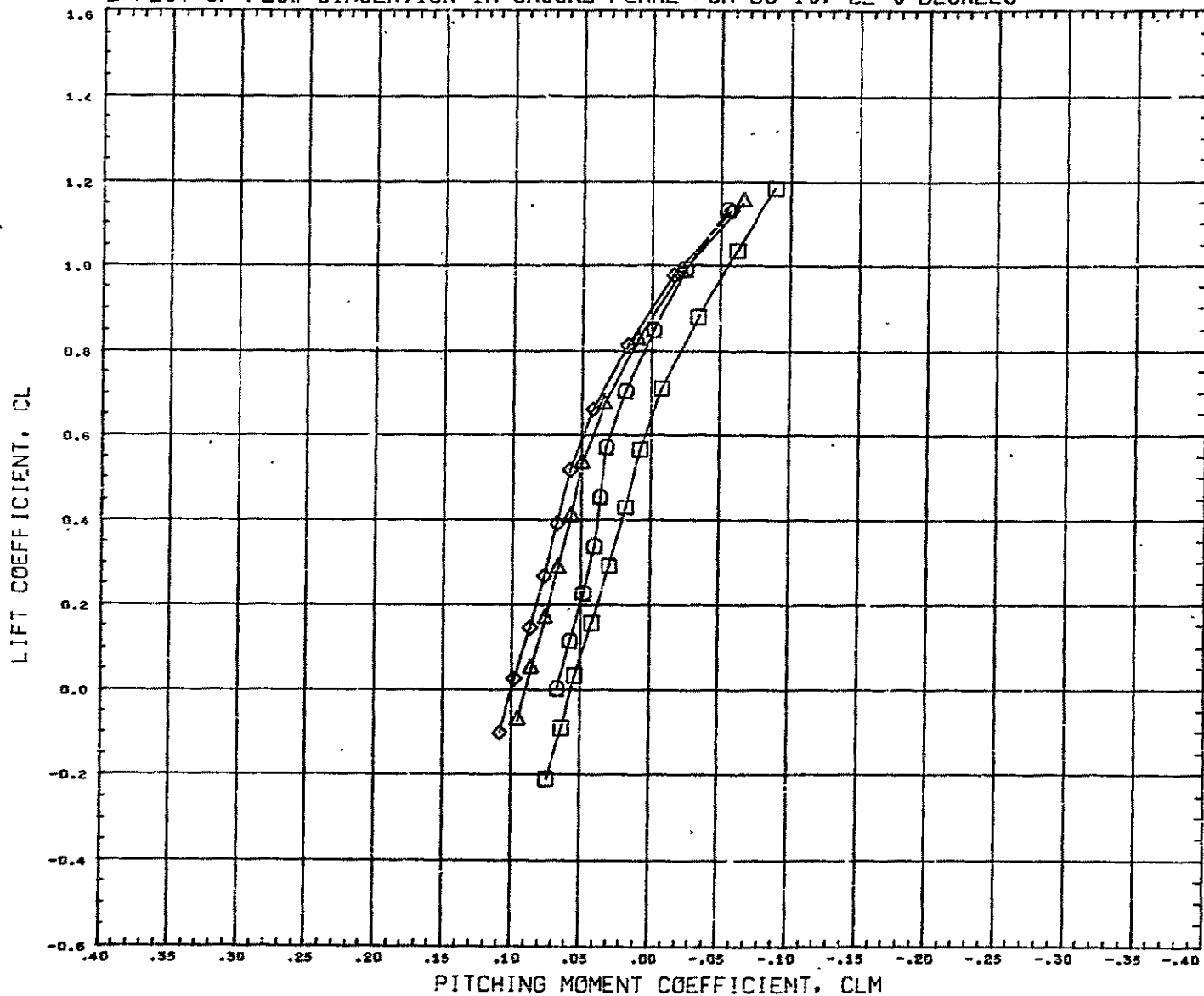
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION		
(ECV6FG)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.000	0.000	10.000	SREF	380.3004	SQ. IN
(FCV6FG)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.520	0.000	10.000	LREF	15.2150	IN.
(GCV6FG)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF	30.4400	IN.
(RCV6GB)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		0.000	10.000	XNRP	33.4360	IN.
						YNRP	0.0000	IN.
						ZNRP	3.9380	IN.
						SCALE	0.0175	

MACH 0.201

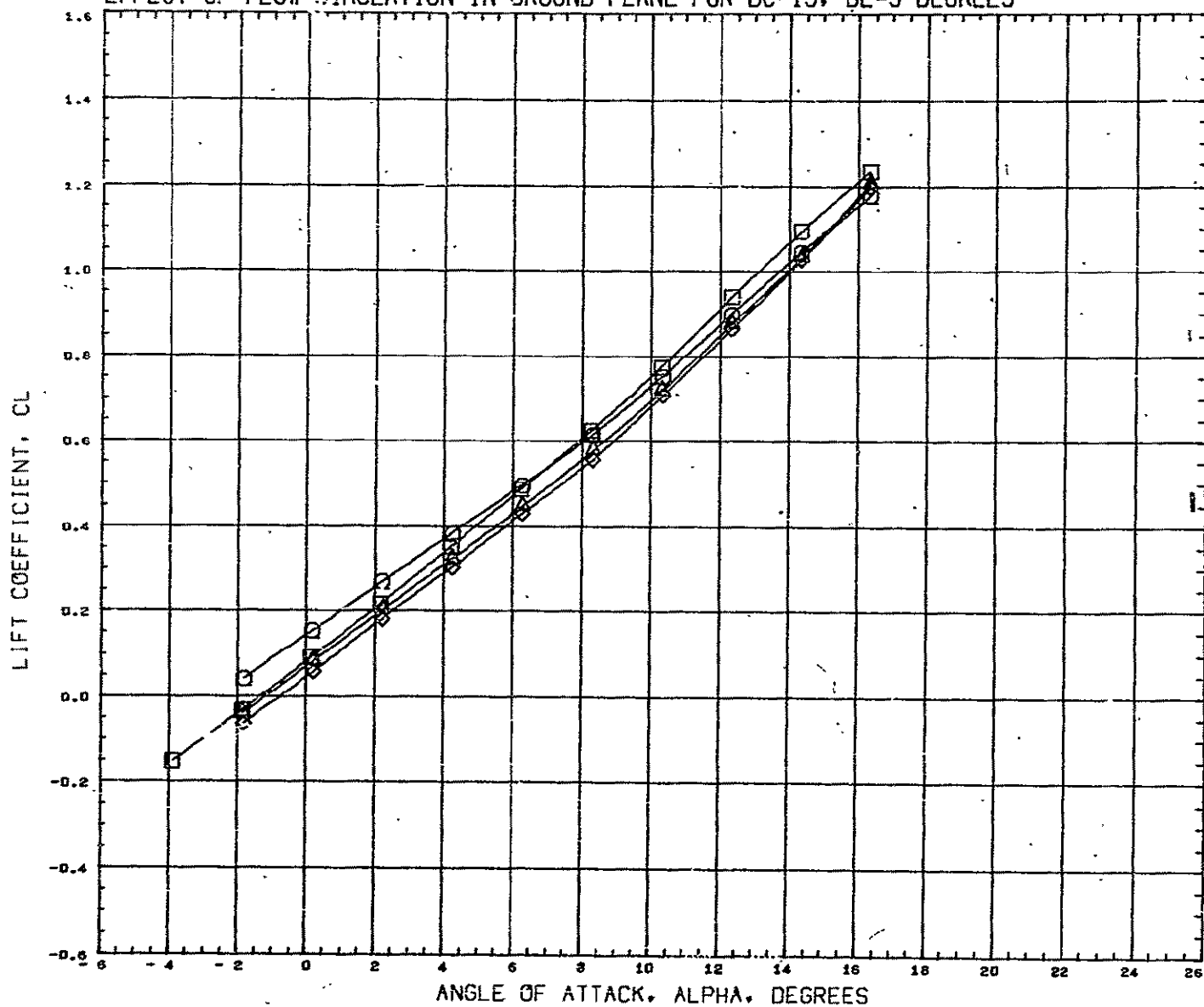
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=10, DE=0 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVGF6)	○	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.000	0.000	10.000	SRCF	380.300% SQ. IN
(PCVGF6)	△	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.520	0.000	10.000	LREF	15.2150 IN.
(GCVGF6)	◇	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF	30.4400 IN.
(KCVGD8)	□	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 10	0.000		0.000	10.000	XMRP	33.4360 IN.
							YMRP	0.0000 IN.
							ZMRP	3.9380 IN.
							SCALE	0.0175

MACH 2.201

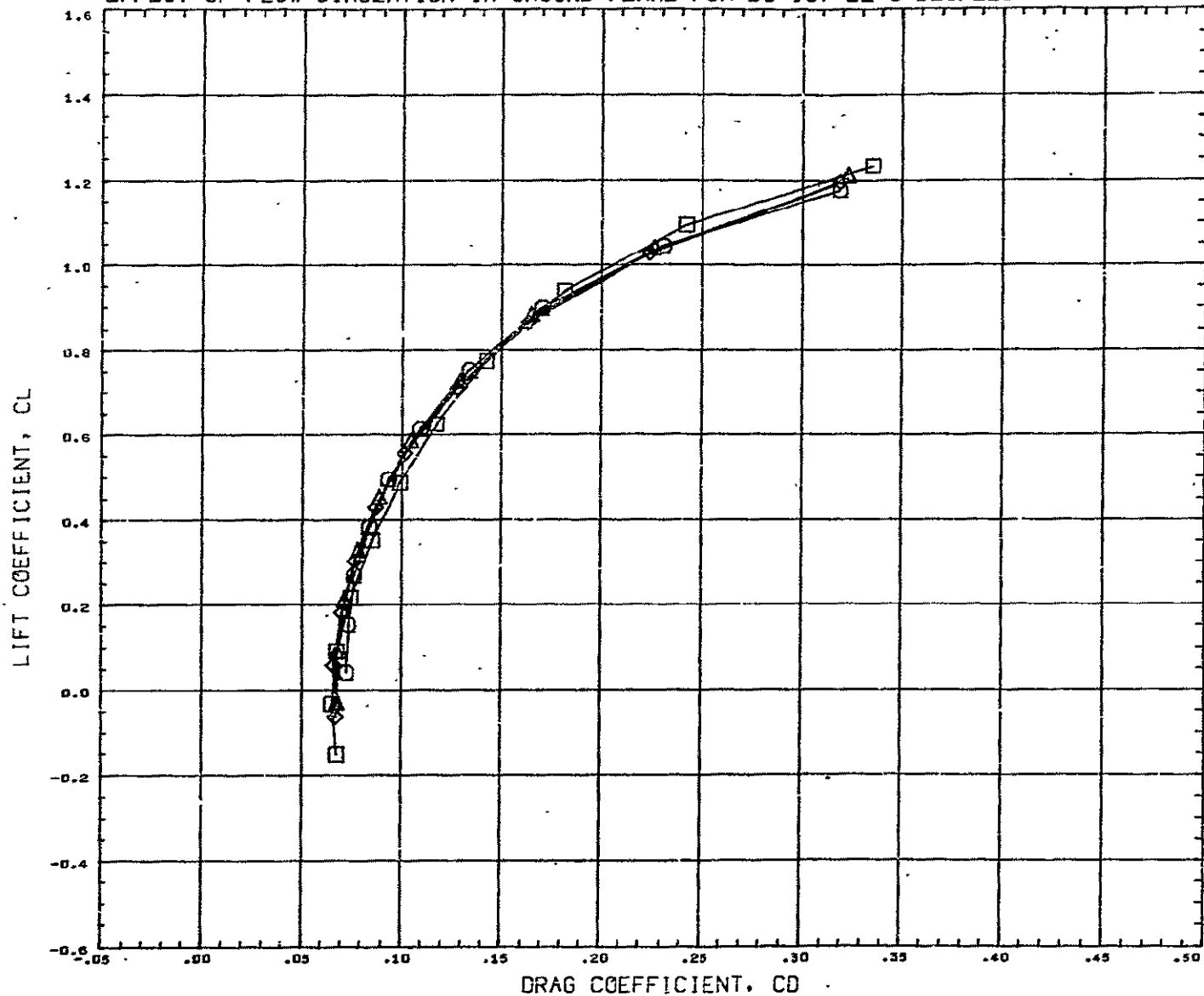
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=15, DE=3 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVGF7)	GDLST 587-1 921X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.000	3.000	15.000	SREF	380.3004 SQ. IN
(FCVGF7)	GDLST 587-1 821X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.520	3.000	15.000	LREF	15.2150 IN.
(GCVGF7)	GDLST 587-1 821X1V7C4W16G3E38 + GP DC= 15 DE=3	0.000	0.620	3.000	15.000	BREF	30.4400 IN.
(ECVG07)	GDLST 587-1 821X1V7C4W16G3E34 + GP DC = 15	0.000		3.000	15.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

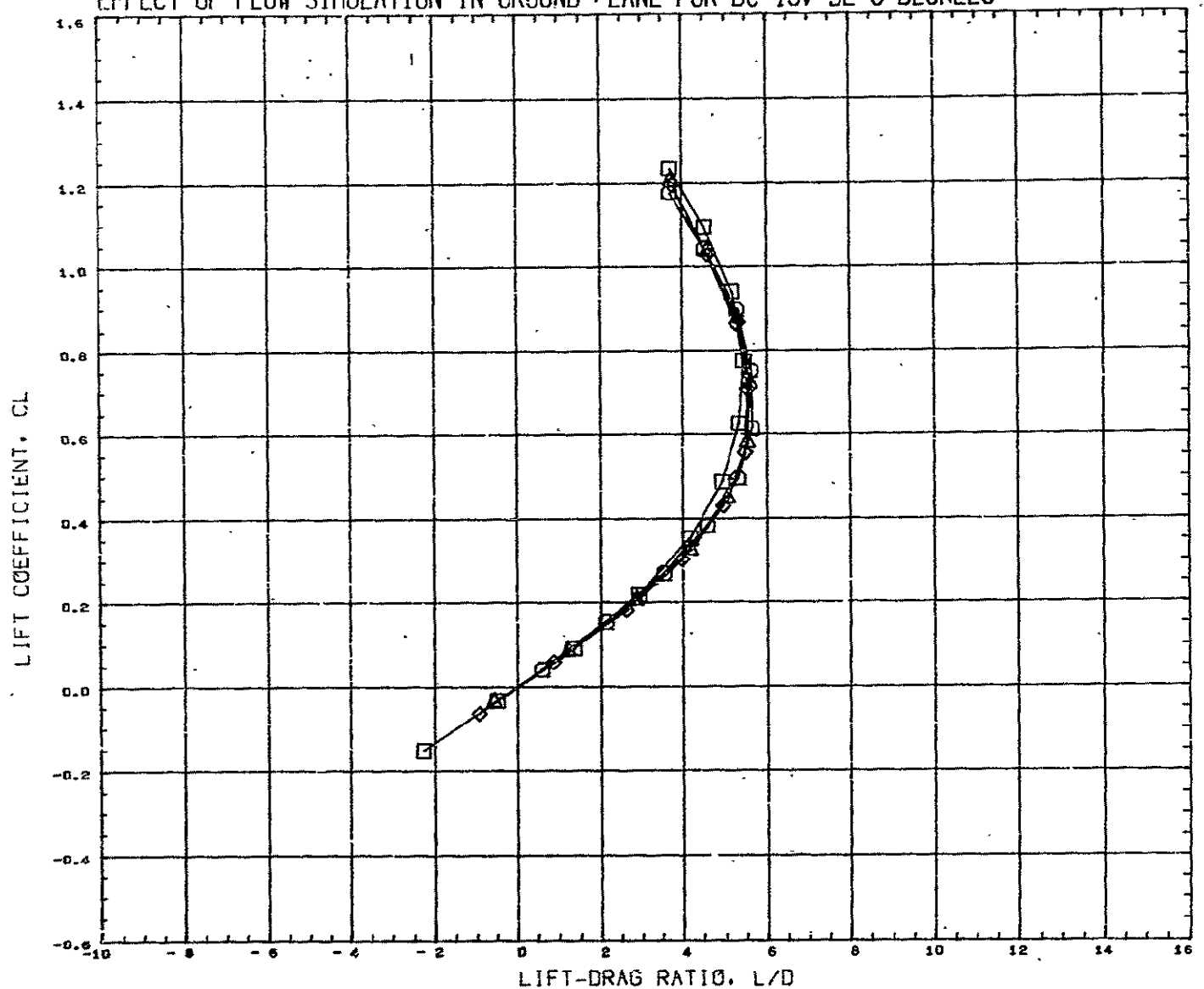
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=15, DE=3 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVGF7)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.000	3.000	15.000	SREF	380.3004 SQ. IN
(FCVGF7)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.520	3.000	15.000	LREF	15.2150 IN.
(GCVGF7)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.620	3.000	15.000	BREF	30.4400 IN.
(ECVG07)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 15	0.000		3.000	15.000	XWRP	33.4360 IN.
						YWRP	0.0000 IN.
						ZWRP	3.9380 IN.
						SCALE	0.0175

HACH 0.261

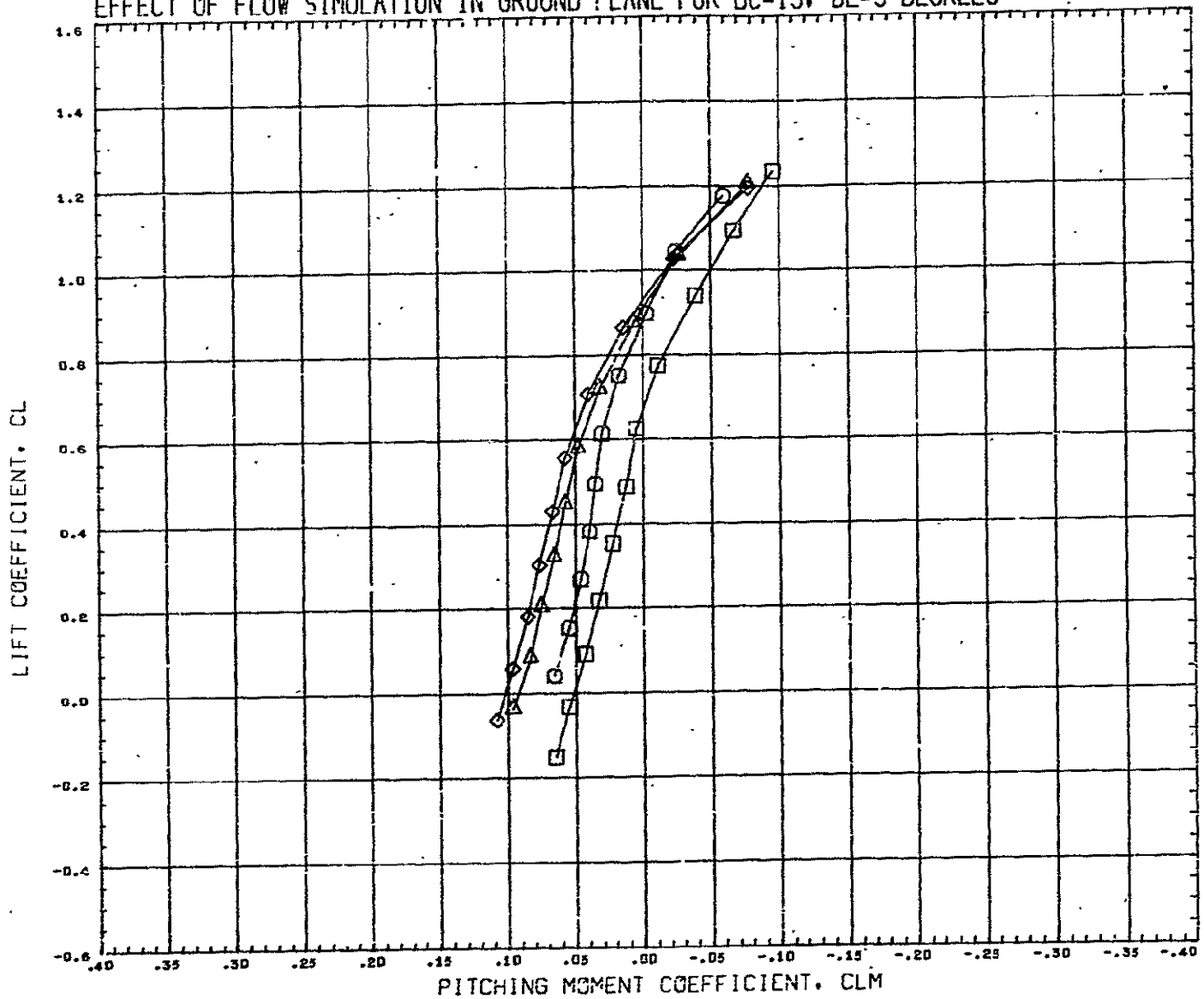
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=15, DE=3 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVGF?)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.000	3.000	15.000	SREF	300.3004 S8. IN
(FCVGF?)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.520	3.000	15.000	LREF	15.2150 IN.
(GCVGF?)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.620	3.000	15.000	BREF	30.4400 IN.
(ECVGD?)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 15	0.000		3.000	15.000	XMRP	93.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

PACH 0.291

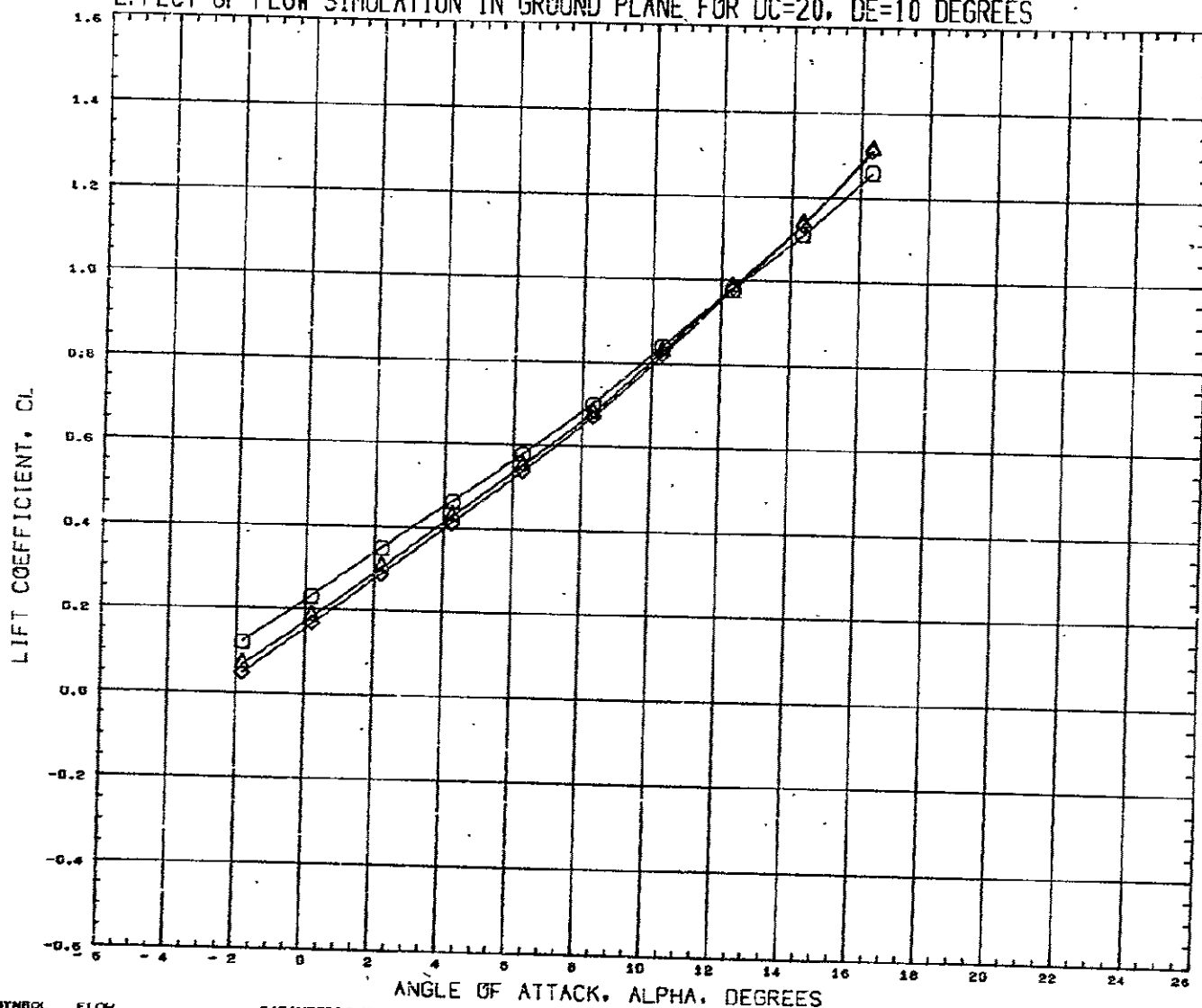
EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=15, DE=3 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION		
(ECVGF7)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.000	3.000	15.000	SREF	380.3004	Sq. IN
(FCVGF7)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.520	3.000	15.000	LREF	15.2150	IN.
(CCVGF7)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.620	3.000	15.000	BREF	30.4400	IN.
(ECVGD7)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC= 15	0.000		3.000	15.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

MACH 0.201

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=20, DE=10 DEGREES



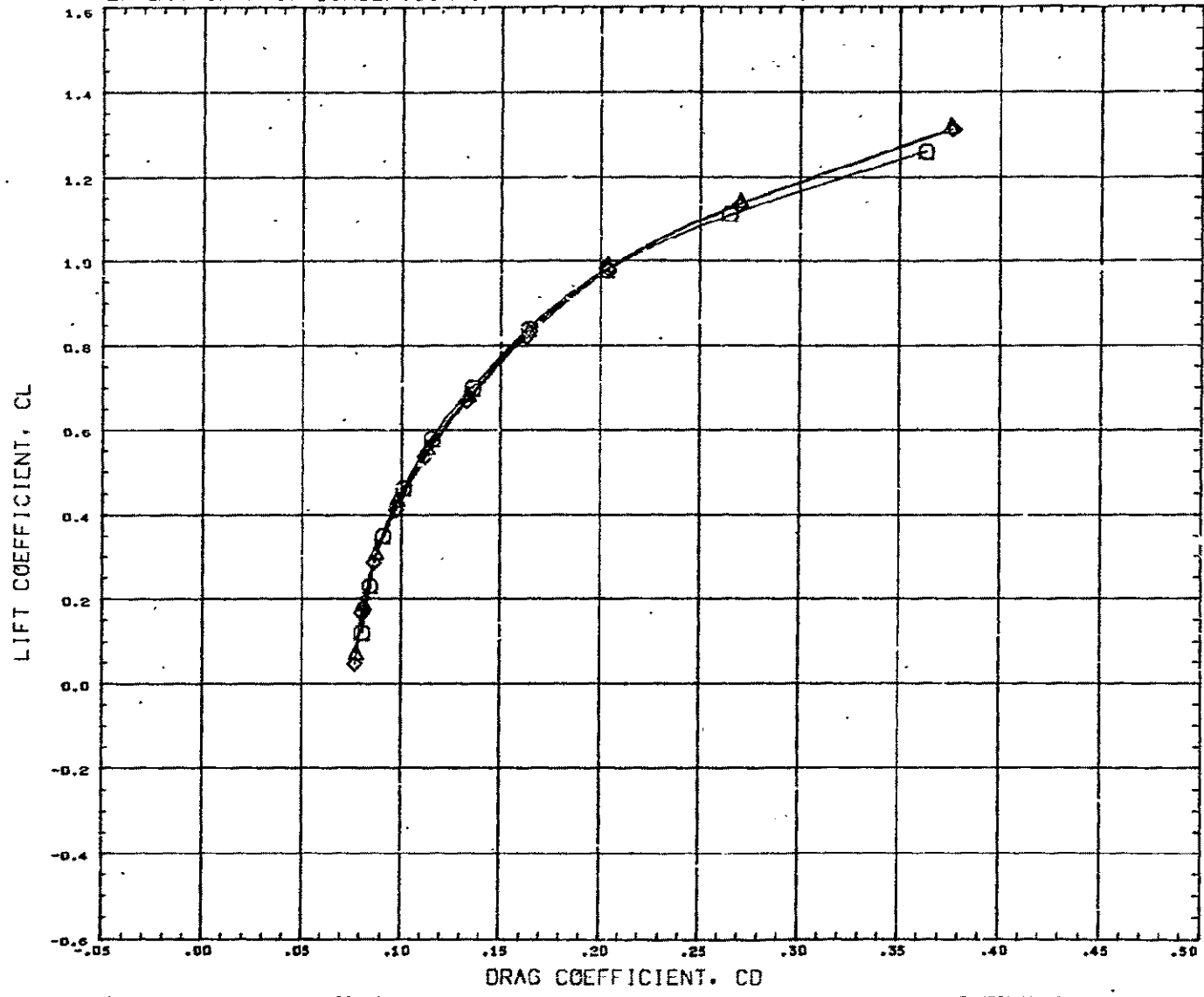
SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	10.000
◇	0.620	AILRON	0.000	CANVTR	20.000
		CANROW	5.000		

REFERENCE INFORMATION		
SREF	380.3004	sq. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

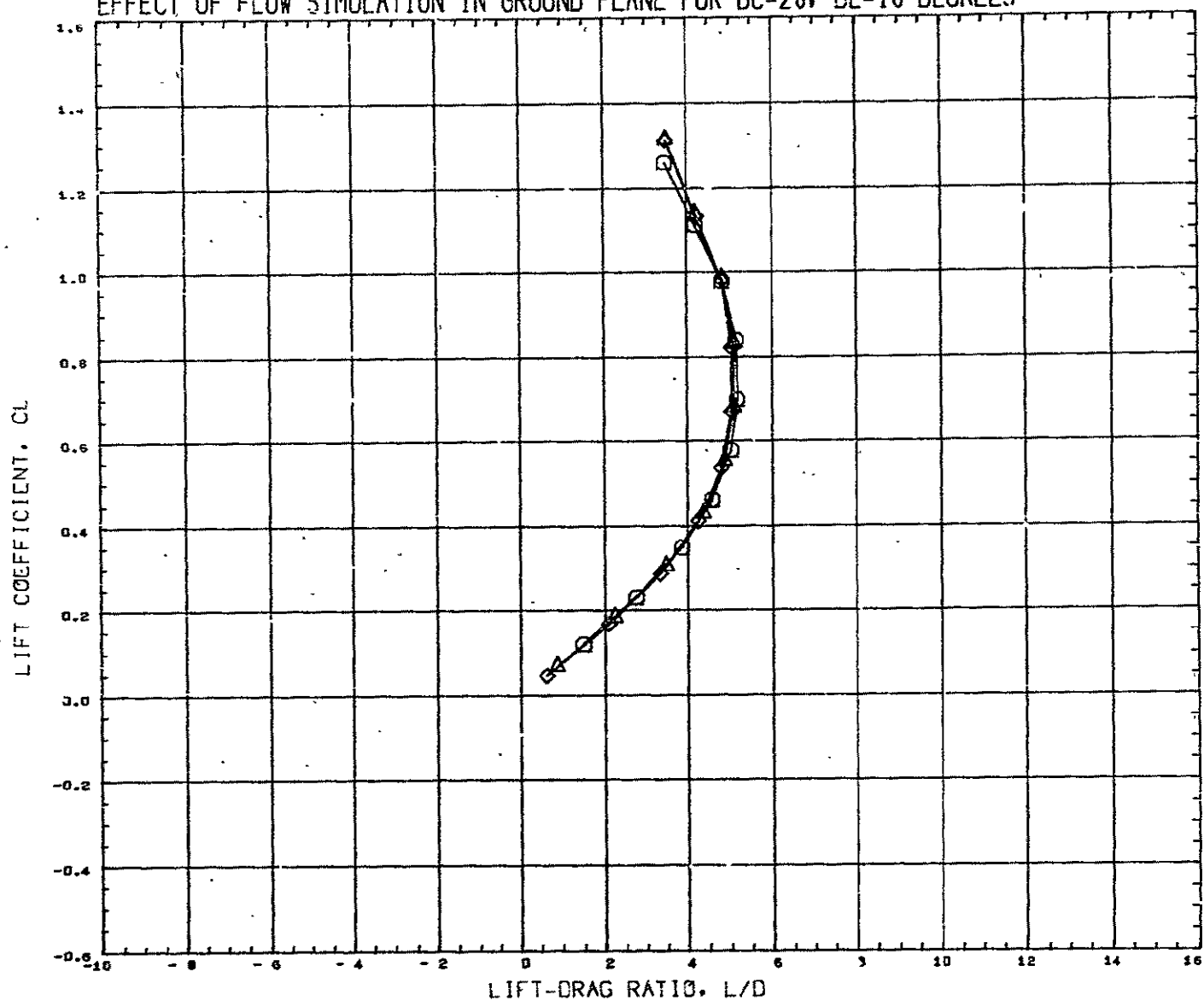
GDLST 587-1 B21X1V7C4W16G3E35 .+ GP DC= 20 DE=10 (ACVGF8) 24 JUL 71 P/SE 229

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=20, DE=10 DEGREES



YMBOL	FLOW	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.000	BETA	0.000	MACH	0.201	SREF	380.3004	SQ. IN
△	0.520	RUDDER	0.000	ELEVTR	10.000	LREF	15.2150	IN.
◇	0.620	AILRON	0.000	CANVTR	20.000	BREF	30.4400	IN.
		CANRON	0.000			XMRP	33.4360	IN.
						YNRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
DATA HIST. CODE MVV								

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=20, DE=10 DEGREES

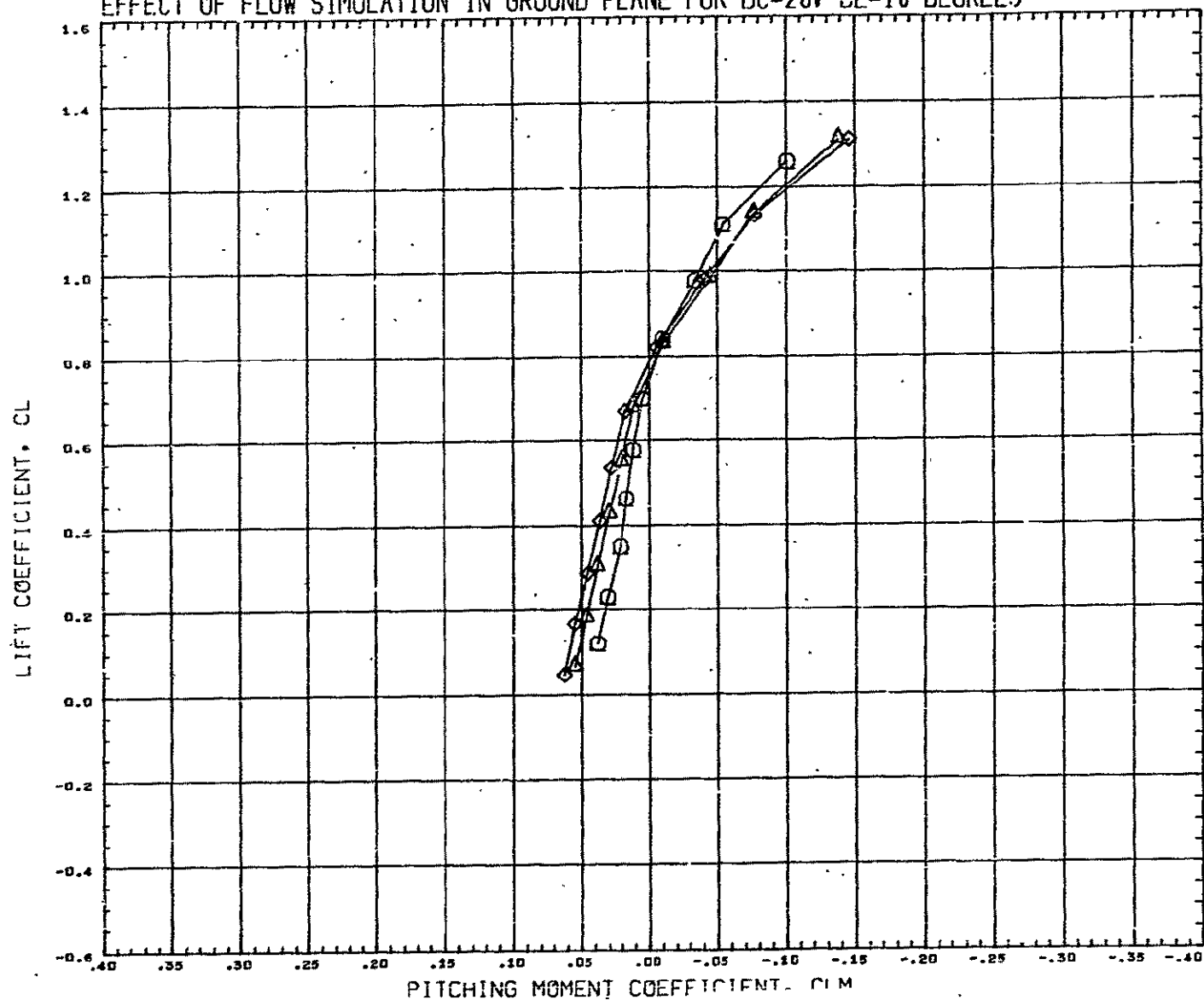


SYMBOL	FLOW	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.000	BETA	0.000	MACH	0.201	SREF	380.3004	SR. IN.
△	0.920	RUDDER	0.000	ELEVTR	10.000	LREF	15.2150	IN.
◇	0.620	AILRON	0.000	CANVTR	20.300	BREF	30.4400	IN.
		CANRON	0.000			XMRP	53.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	5.9380	IN.
						SCALE	0.0175	

DATA HIST. CODE MVV

GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=10 (ACVGF8) 24 JUL 71 P/3E 231

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=20, DE=10 DEGREES

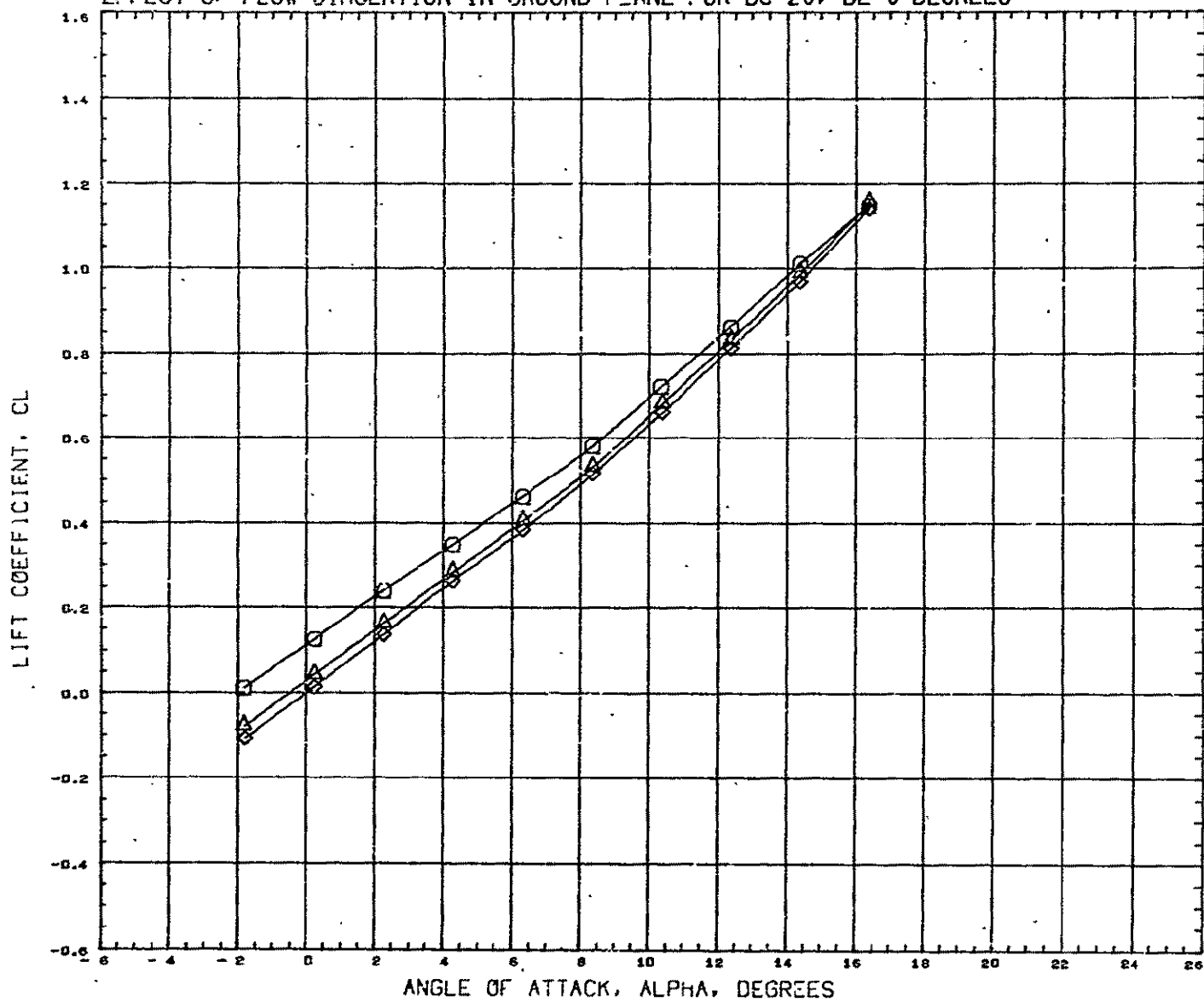


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	10.000
◇	0.620	AILRON	0.000	CANVTR	20.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2156	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=20, DE=0 DEGREES

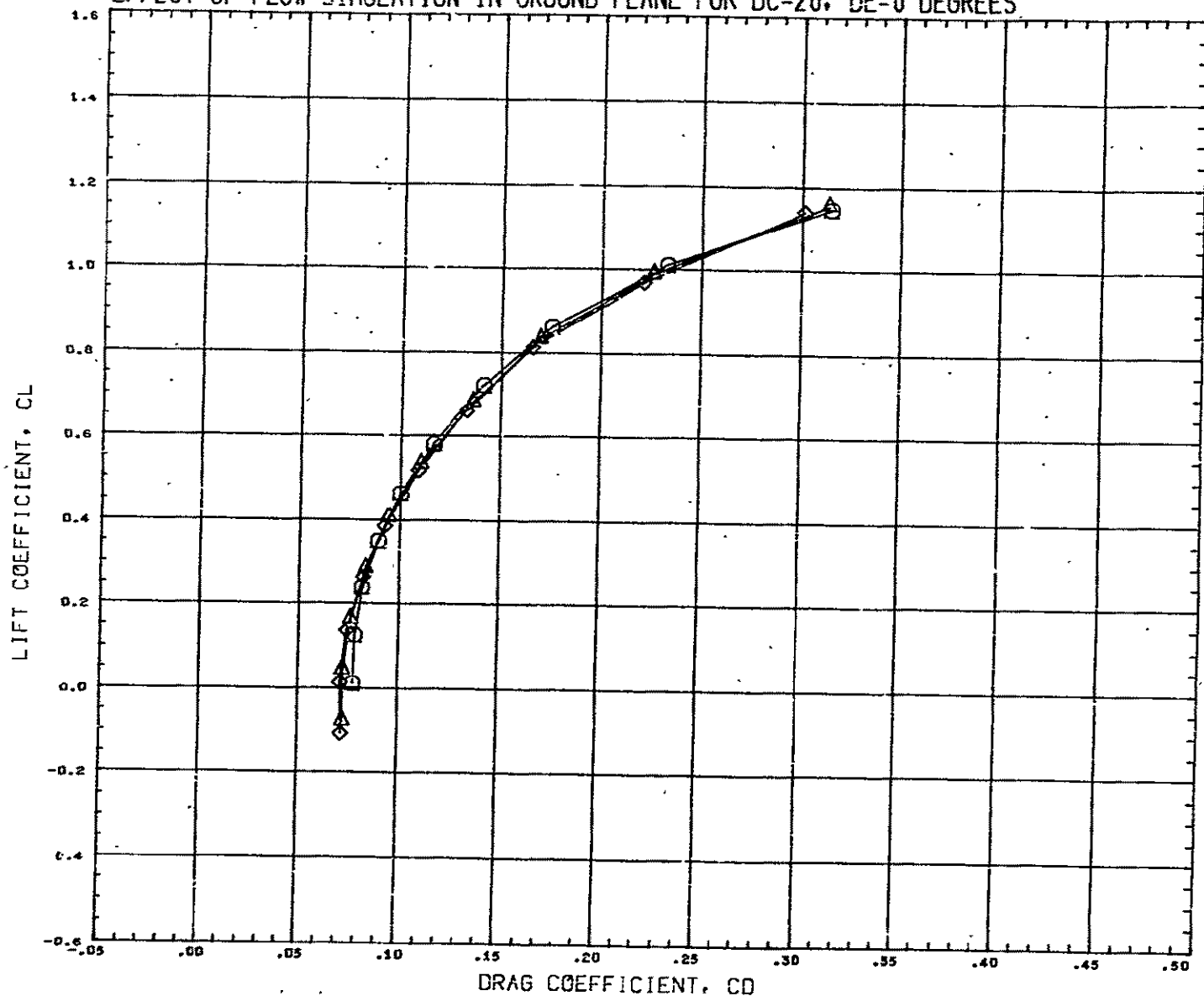


SYMBOL	○	FLOW	0.000	BETA	0.000	MACH	0.201
	△	0.520	RUDDER	0.000	ELEVTR	0.000	
	◇	0.520	AILRON	0.000	CANVTR	20.000	
			CANRON	0.000			

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=20, DE=0 DEGREES

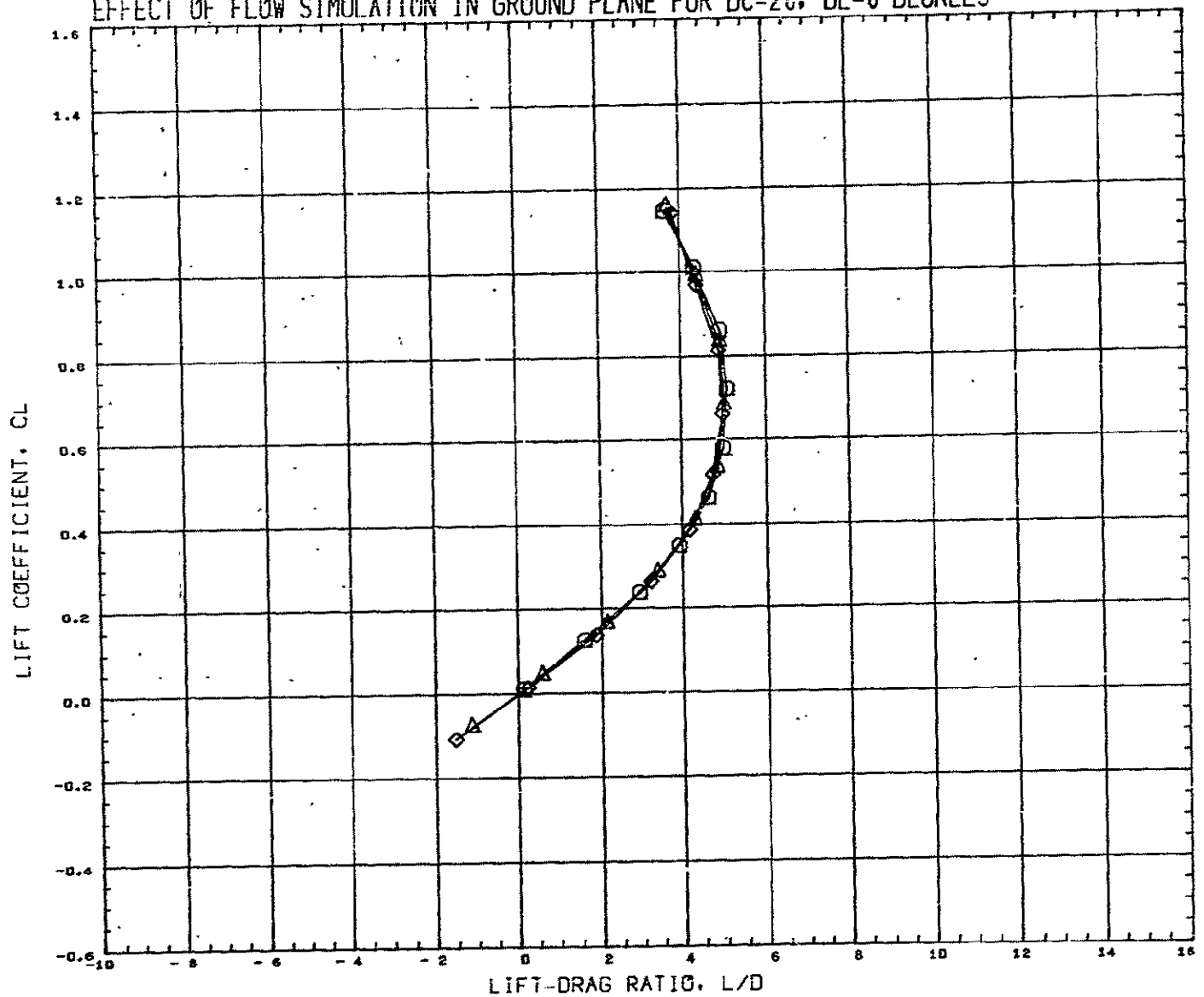


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	20.000
		CANRON	0.000		

DATA HIST. CODE NVV

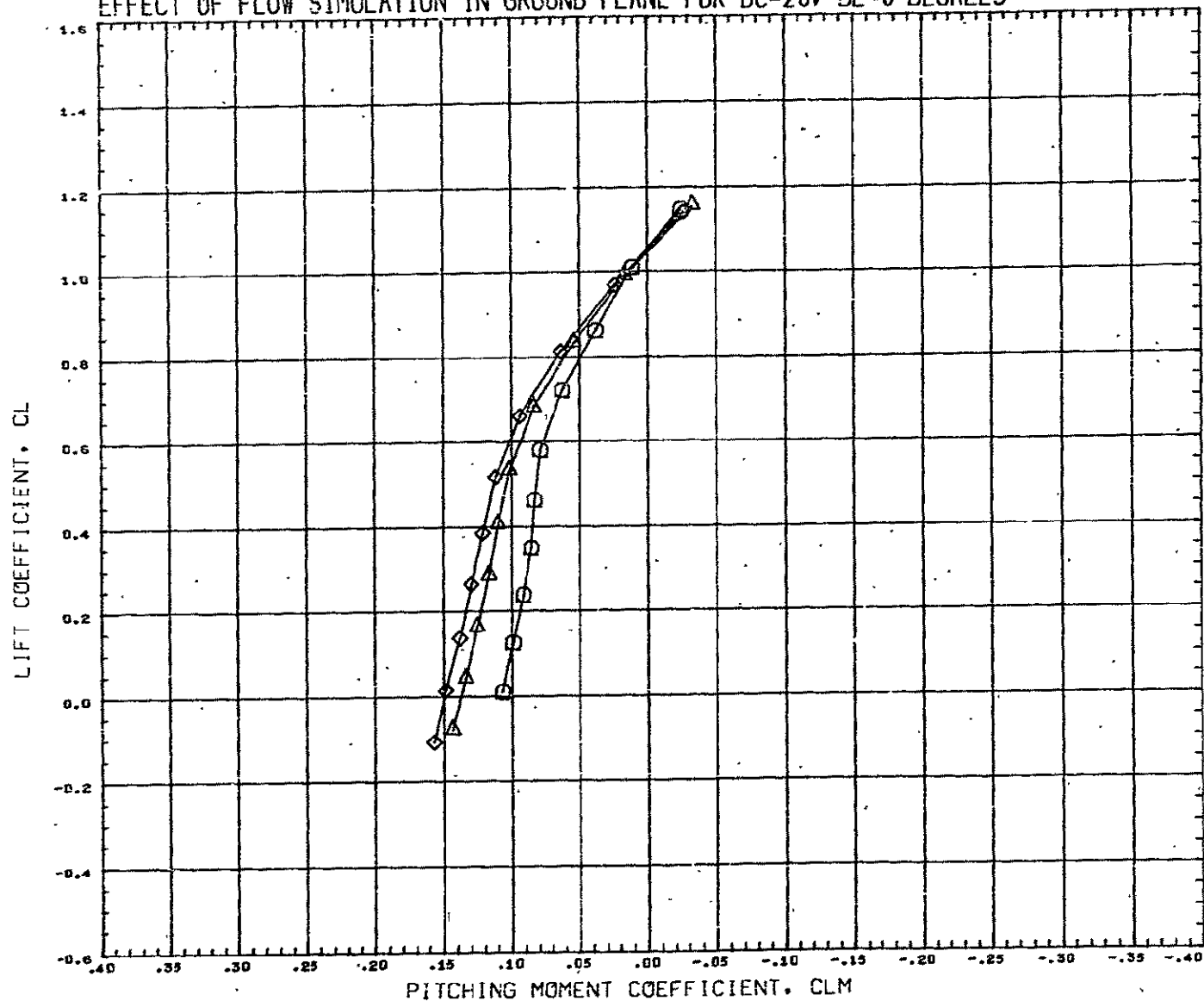
REFERENCE INFORMATION		
SREF	380.3004	sq. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=20, DE=0 DEGREES



SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION		
○	FLOW	0.000	BETA	0.000	MACH	0.201	SREF	300.3004
△	0.520	RUDDER	0.000	ELEVTR	0.000		LREF	15.2150
◇	0.620	AILRON	0.000	CANVTR	20.000		SREF	30.4400
		CANRON	0.000				XMRP	33.4360
							YMRP	0.0000
							ZMRP	5.9390
							SCALE	0.0175
DATA HIST. CODE MVV								

EFFECT OF FLOW SIMULATION IN GROUND PLANE FOR DC=20, DE=0 DEGREES



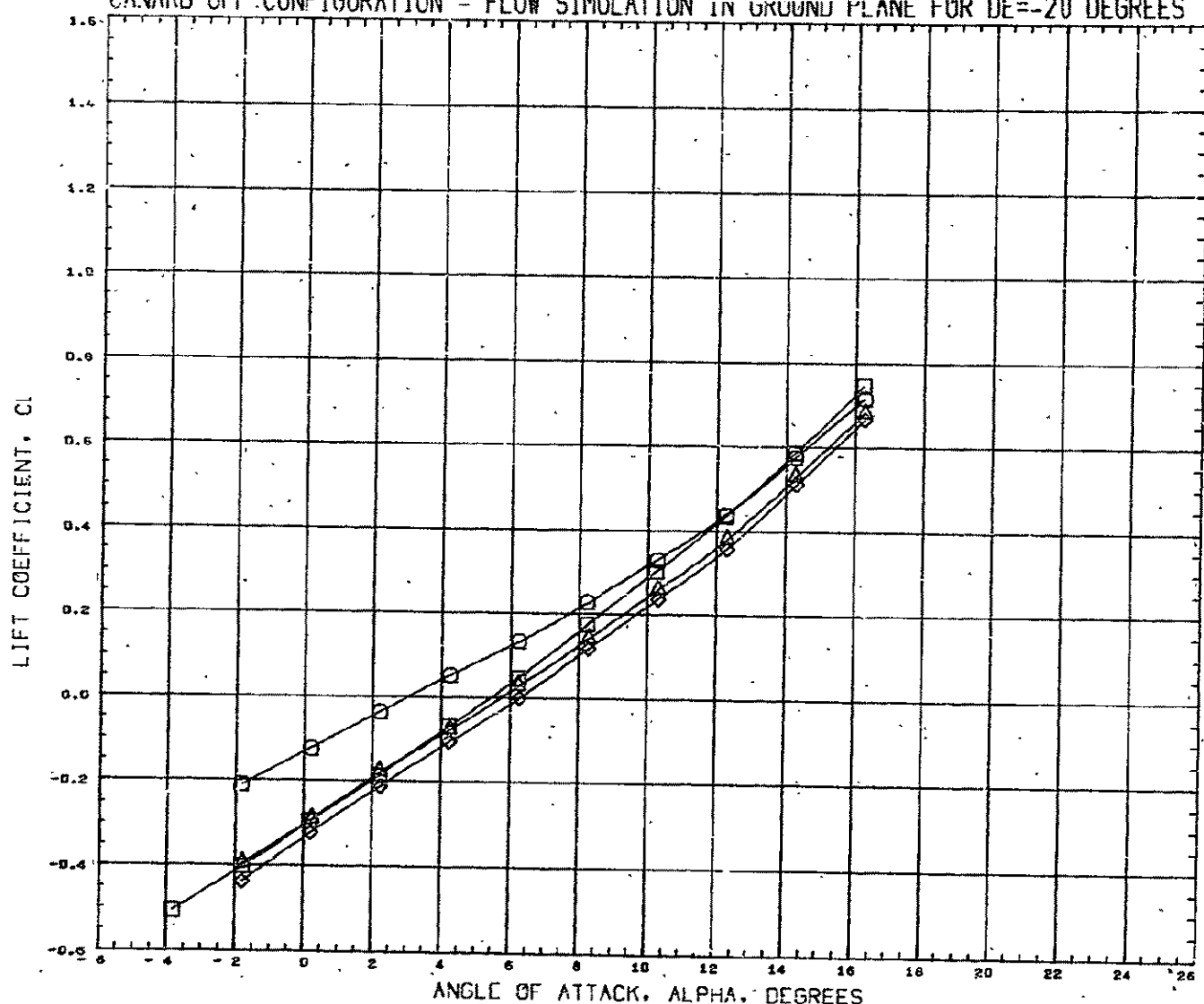
SYMBOL	FLOW	PARAMETRIC VALUES			
		DELTA	RUDDER	AILRON	CANTRON
○	0.000	0.000	0.000	0.000	0.000
△	0.520	0.000	0.000	0.000	0.000
◇	0.620	0.000	0.000	0.000	0.000

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	sq. in
LREF	15.2150	in.
BREF	30.4400	in.
XMRP	33.4360	in.
YMRP	0.0000	in.
ZMRP	3.9380	in.
SCALE	0.0175	

GDLST 587-1 B21X1V7C4W1RG3E35 + GP DC= 20 DE=0 (ACVGF9) 24 JUL 71 P/3E 236

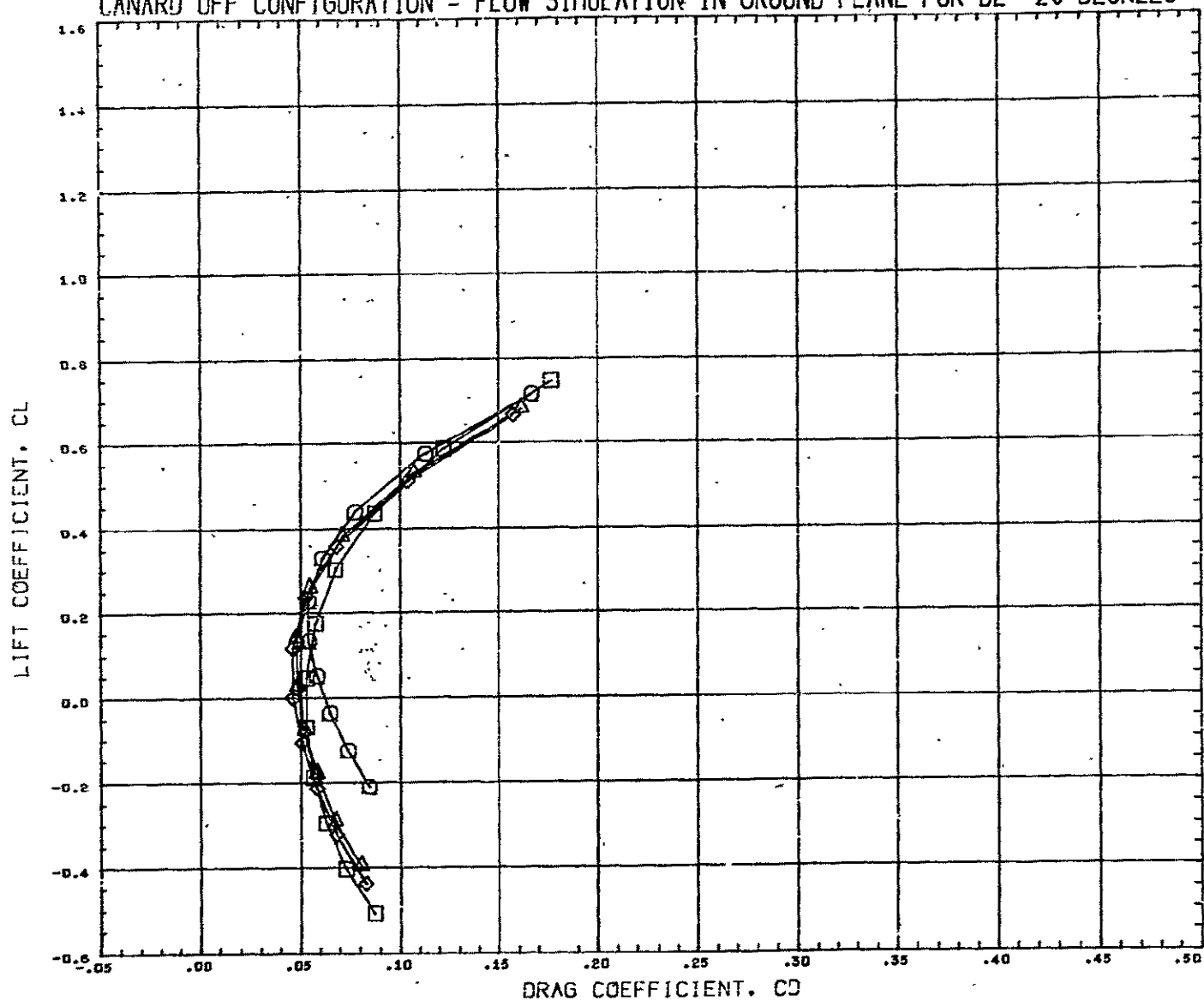
CANARD OFF CONFIGURATION - FLOW SIMULATION IN GROUND PLANE FOR DE=-20 DEGREES



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ANGLE OF ATTACK: ALPHA: DEGREES		BETA	FLOW	ELEVTR	AILRON	REFERENCE INFORMATION	
(ECV6F0)	□	GDLST 587-1	B21X1V7W16C3E35	+ GF	DE=-20	0.000	0.000	-20.000	0.000	SREF	380.0004 sq. in
(FCV6F0)	△	GDLST 587-1	B21X1V7W16C3E35	+ GF	DE=-20	0.000	0.520	-20.000	0.000	LREF	15.2150 in.
(GCV6F0)	◇	GDLST 587-1	B21X1V7W16C3E35	+ GF	DE=-20	0.000	0.620	-20.000	0.000	BREF	30.4400 in.
(GCV608)	□	GDLST 587-1	B21X1V7W16C3	+ GF		0.000		-20.000	0.000	WMRP	33.4360 in.
										YMRF	0.0000 in.
										ZMRP	3.9380 in.
										SCALE	0.0175
MACH		0.201									

MACH 0.201

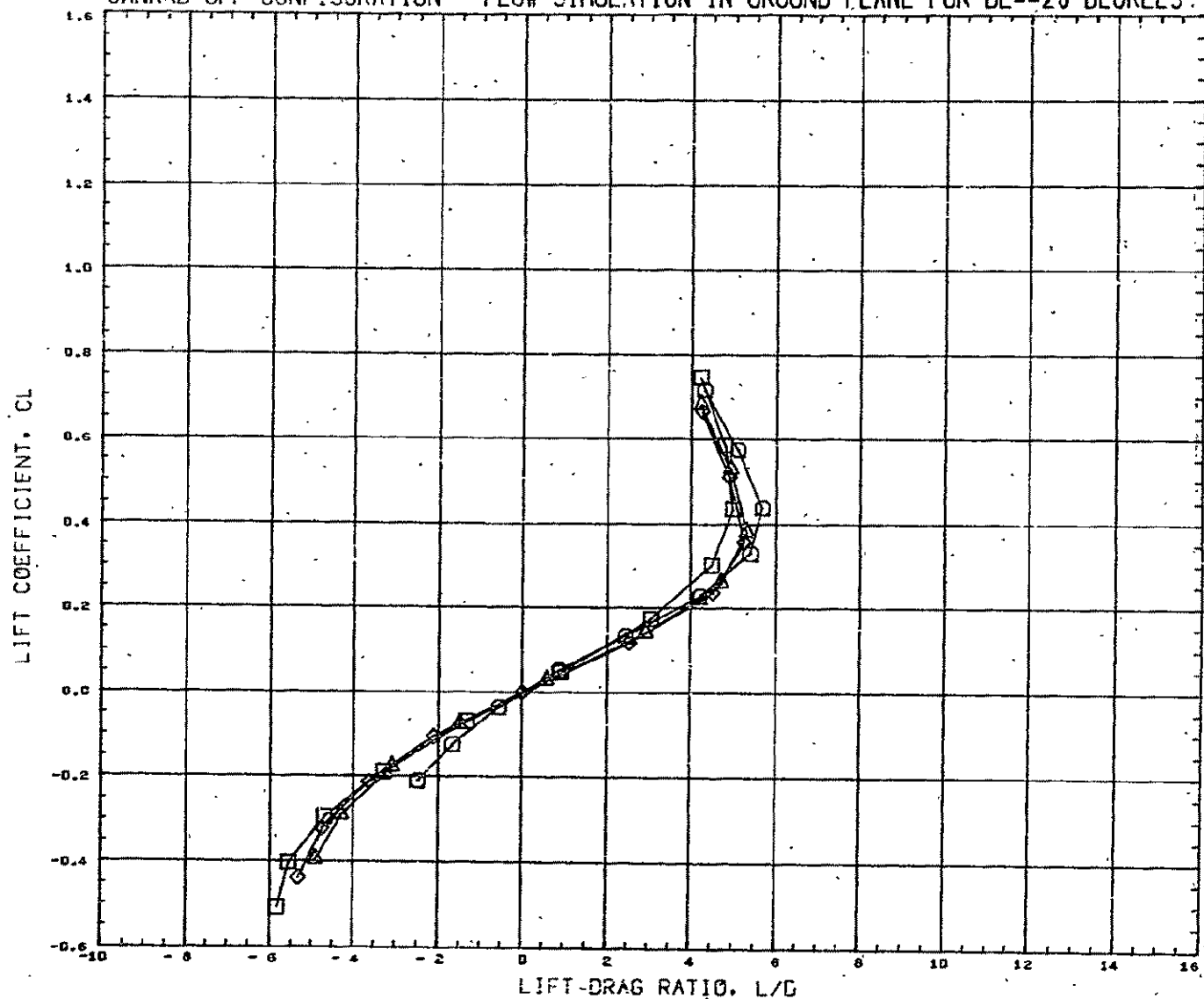
CANARD OFF CONFIGURATION - FLOW SIMULATION IN GROUND PLANE FOR DE=-20 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	AILRON	REFERENCE INFORMATION
(ECVGF0)	○	GDLST 587-1 B21X1V7W16G3E35 + GP	DE=-20 0.000	0.000	-20.000	0.000	SREF 380.3004 SQ. IN
(FCVGF0)	△	GDLST 587-1 B21X1V7W16G3E35 - GP	DE=-20 0.000	0.520	-20.000	0.000	LREF 15.2.50 IN.
(GCVGF0)	◇	GDLST 587-1 B21X1V7W16G3E35 + GP	DE=-20 0.000	0.620	-20.000	0.000	BREF 30.4400 IN.
(GCVGF0)	□	GDLST 587-1 B21X1V7W16G3E35 + GP	0.000		-20.000	0.000	XNRP 33.4360 IN.
							YNRP 0.0000 IN.
							ZNRP 3.9380 IN.
							SCALE 0.0175

MACH 0.201

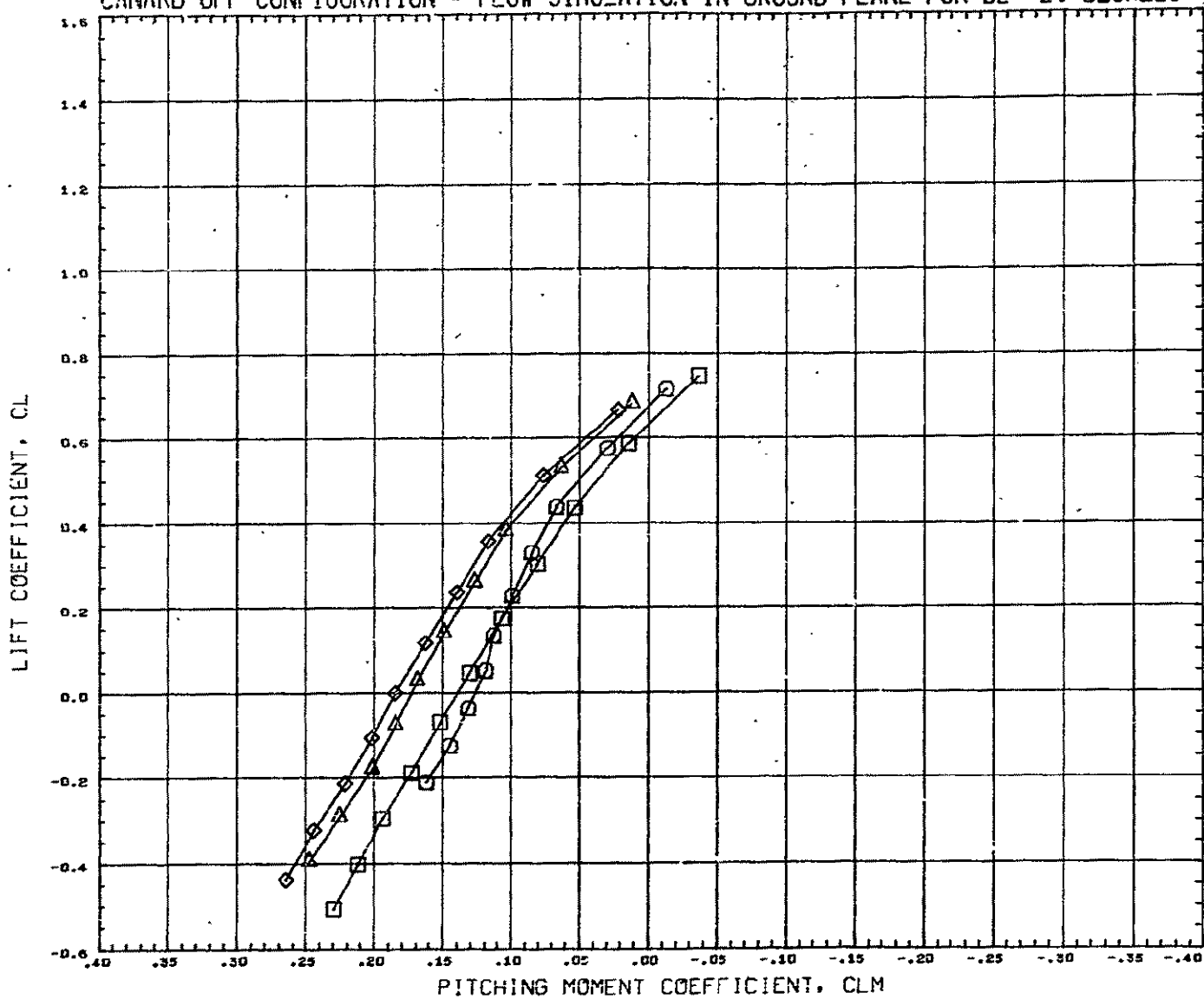
CANARD OFF CONFIGURATION - FLOW SIMULATION IN GROUND PLANE FOR DE=-20 DEGREES.



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	AILRON	REFERENCE INFORMATION
(ECVGF0)	○	GDLST 587-1 B21X1V7W16G3E35 + GP	DE=-20	0.000	0.000	-20.000	0.000 SREF 530.3004 sq. IN
(FCVGF0)	△	GDLST 587-1 B21X1V7W16G3E35 + GP	DE=-20	0.000	0.520	-20.000	0.000 LREF 15.2150 IN.
(GCVGF0)	◇	GDLST 587-1 B21X1V7W16G3E35 + GP	DE=-20	0.000	0.620	-20.000	0.000 BREF 30.4400 IN.
(GCVG06)	□	GDLST 587-1 B21X1V7W16G3 + GP		0.000		-20.000	0.000 YMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9780 IN.
							SCALE 0.0175

MACH 0.201

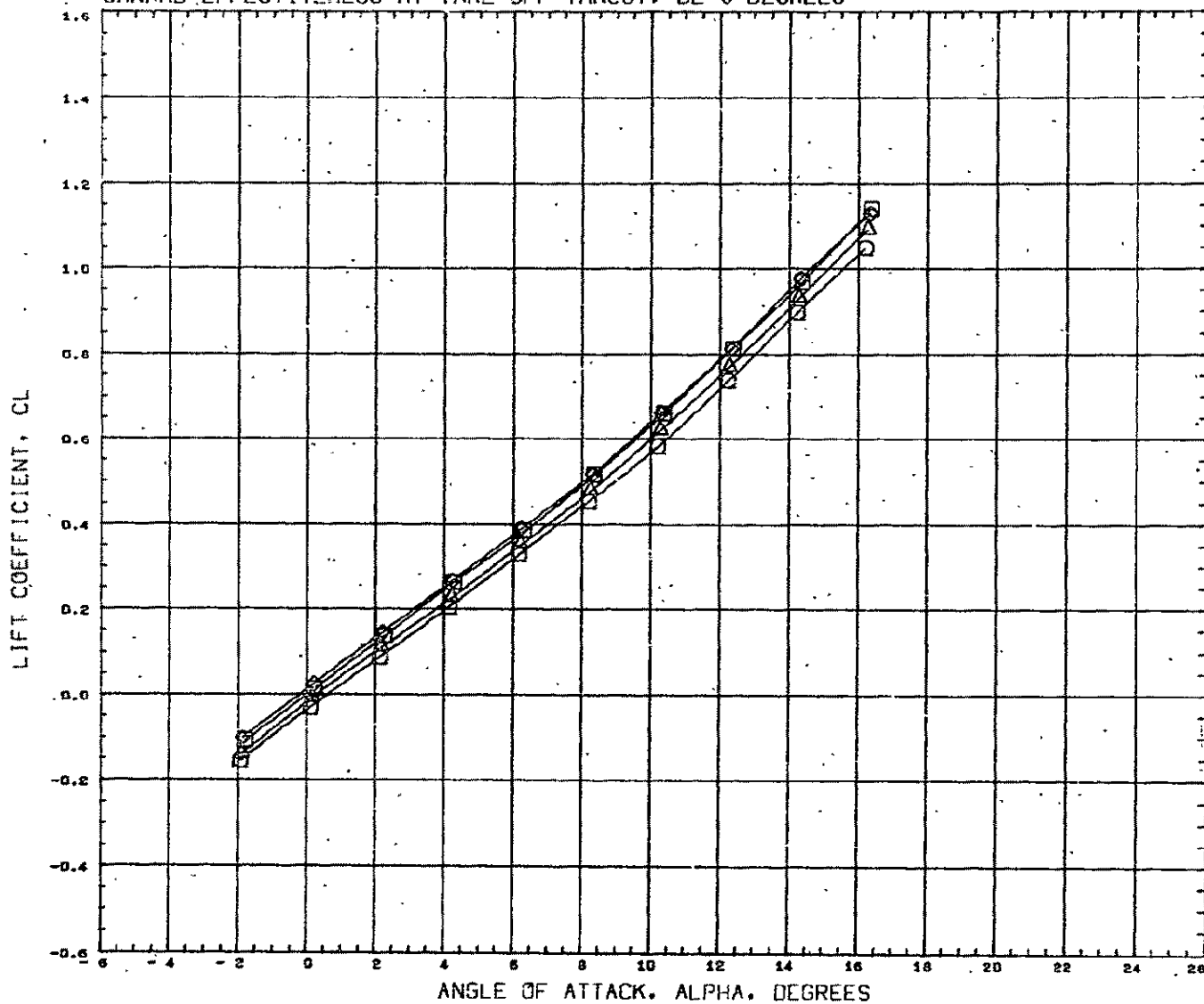
CANARD OFF CONFIGURATION - FLOW SIMULATION IN GROUND PLANE FOR DE=-20 DEGREES



DATA SET SYMBOL	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	AILRON	REFERENCE INFORMATION
(ECVGF0)	○	GDLST 587-1 B21X1V7W16G3E35 + GP	0.000	0.000	-20.000	0.000	SREF 380.3004 sq. IN
(FCVGF0)	△	GDLST 587-1 B21X1V7W16G3E35 + GP	0.000	0.520	-20.000	0.000	LREF 15.2150 IN.
(GCVGF0)	◇	GDLST 587-1 B21X1V7W16G3E35 + GP	0.000	0.620	-20.000	0.000	BREF 30.4400 IN.
(GCVG05)	□	GDLST 587-1 B21X1V7W16G3E35 + GP	0.000	0.620	-20.000	0.000	XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.0175

KACH 0.201

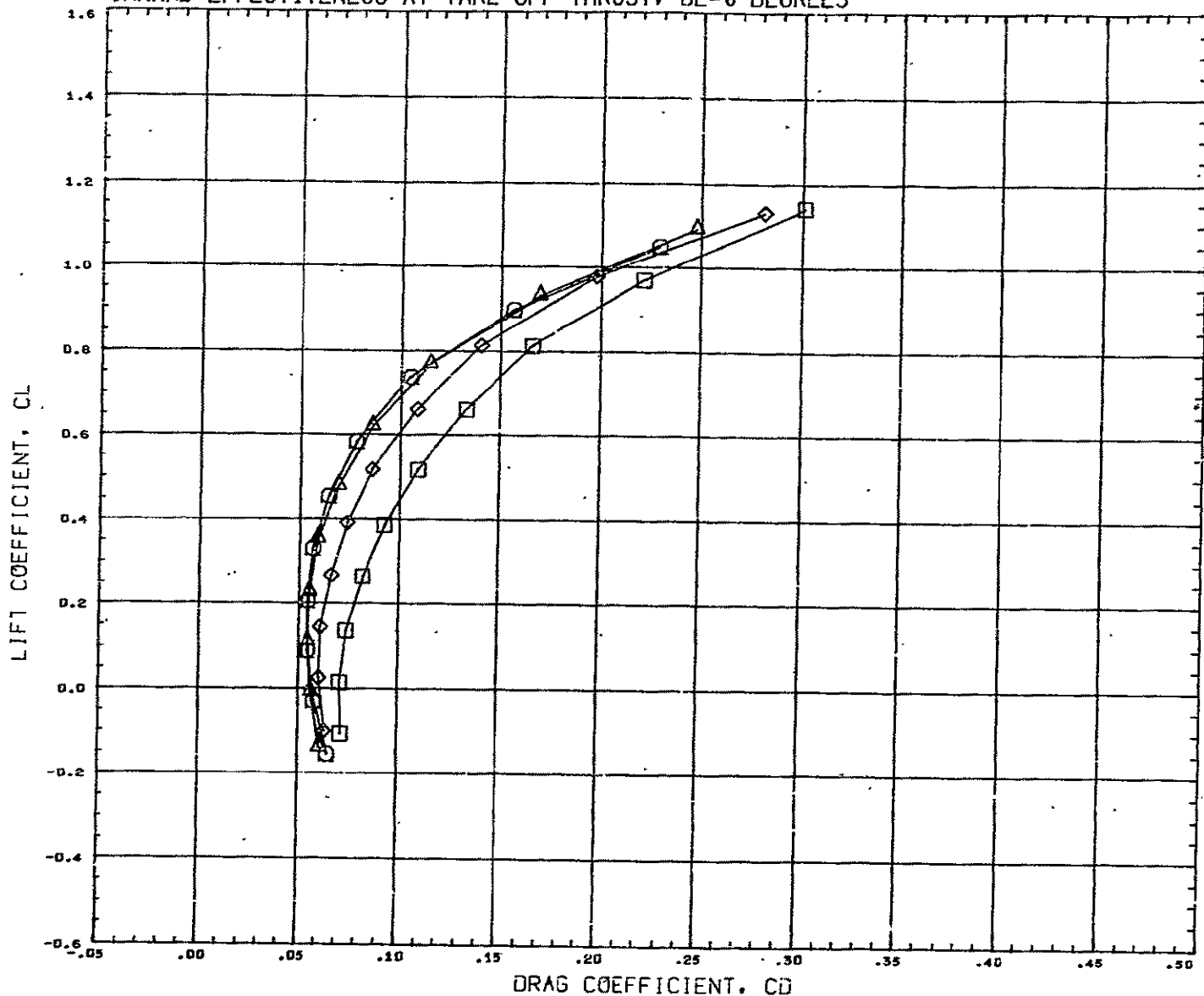
CANARD EFFECTIVENESS AT TAKE-OFF THRUST, DE=0 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(GCV6F2)	○	GDLST 567-1 821X1V7C4W16G3E35 + GP DC=-10 DE=0	0.000	0.620	0.000	-10.000	SREF 300.3004 SQ. IN
(GCV6F1)	◇	GDLST 567-1 821X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.620	0.000	0.000	LREF 15.2150 IN.
(GCV6F8)	△	GDLST 567-1 821X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF 30.4400 IN.
(GCV6F9)	□	GDLST 567-1 821X1V7C4W16G3E35 + GP DC= 20 DE=0	0.000	0.620	0.000	20.000	XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.0175

MACH G.201

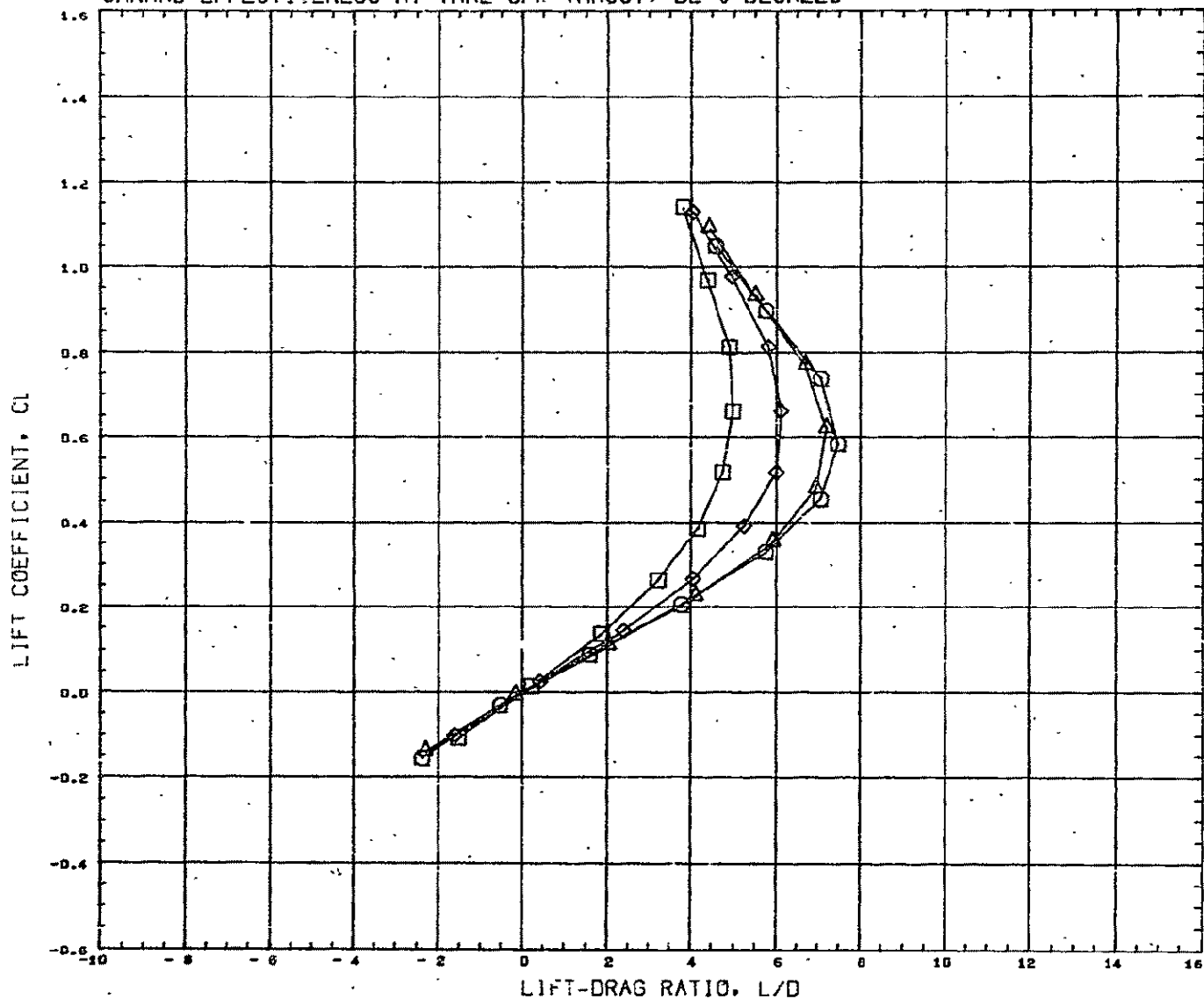
CANARD EFFECTIVENESS AT TAKE-OFF THRUST, DE=0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(GCVGF2)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC=-10 DE=0	0.008	0.620	0.000	-10.000	SREF	380.3004 SQ. IN
(GCVGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.008	0.620	0.000	0.000	LREF	15.2150 IN.
(GCVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.008	0.620	0.000	10.000	BREF	30.4400 IN.
(GCVGF9)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=0	0.008	0.620	0.000	20.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9360 IN.
						SCALE	0.0175

MACH	0.201
S	CDL
X	CDI
J	CDJ

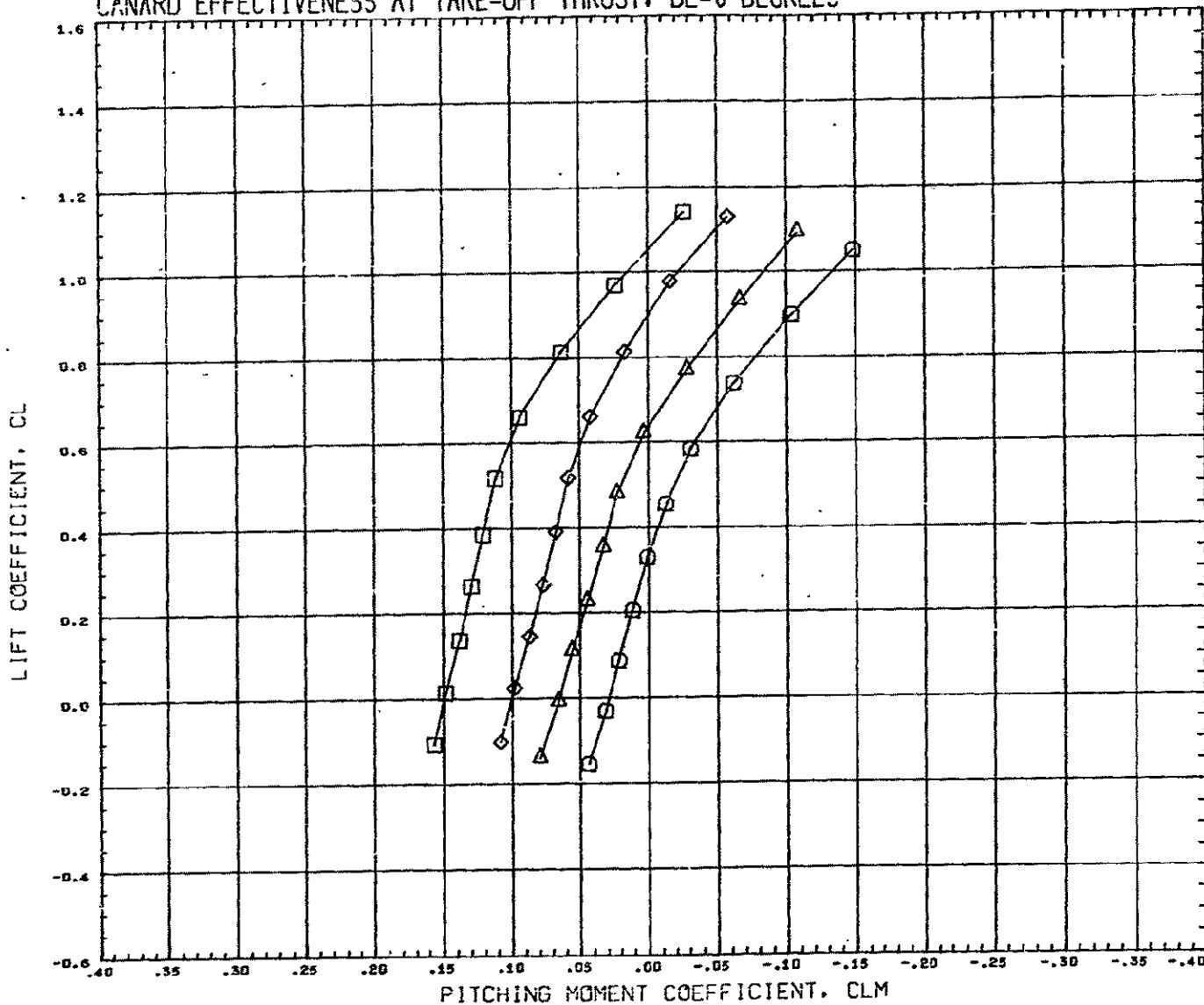
CANARD EFFECTIVENESS AT TAKE-OFF THRUST, DE=0 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION		
(GCVGF2)	○	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC=-10 DE=0	0.000	0.620	0.000	-10.000	SREF	380.3004	Sq. IN
(GCVGF1)	△	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.620	0.000	0.000	LREF	15.2150	IN.
(GCVGF6)	◇	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF	30.4400	IN.
(GCVGF9)	□	GDLST 537-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=0	0.000	0.620	0.000	20.000	XMRP	33.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9381	IN.
							SCALE	0.0175	

MACH 0.201

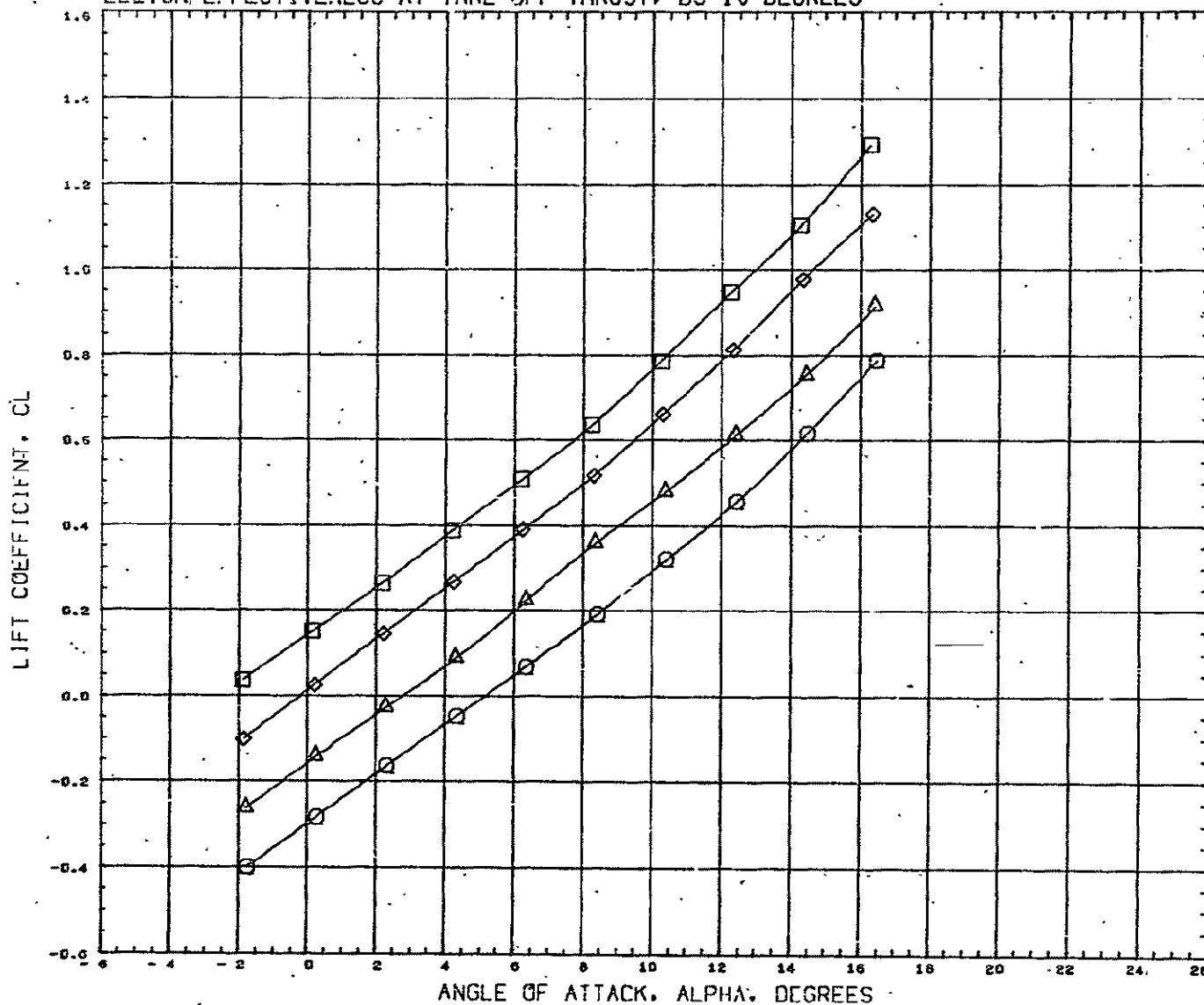
CANARD EFFECTIVENESS AT TAKE-OFF THRUST, DE=0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(6CVGF2)	GDLST 587-1 B21X1V7C4W1663E35 + GP DC=-10 DE=0	0.000	0.620	0.000	-10.000	SREF 380.3004 SQ. IN
(6CVGF1)	GDLST 587-1 B21X1V7C4W1663E35 + GP DC= 0 DE=0	0.000	0.620	0.000	0.000	LREF 15.2150 IN.
(6CVGF6)	GDLST 587-1 B21X1V7C4W1663E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF 30.4400 IN.
(6CVGF9)	GDLST 587-1 B21X1V7C4W1663E35 + GP DC= 20 DE=0	0.000	0.620	0.000	20.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

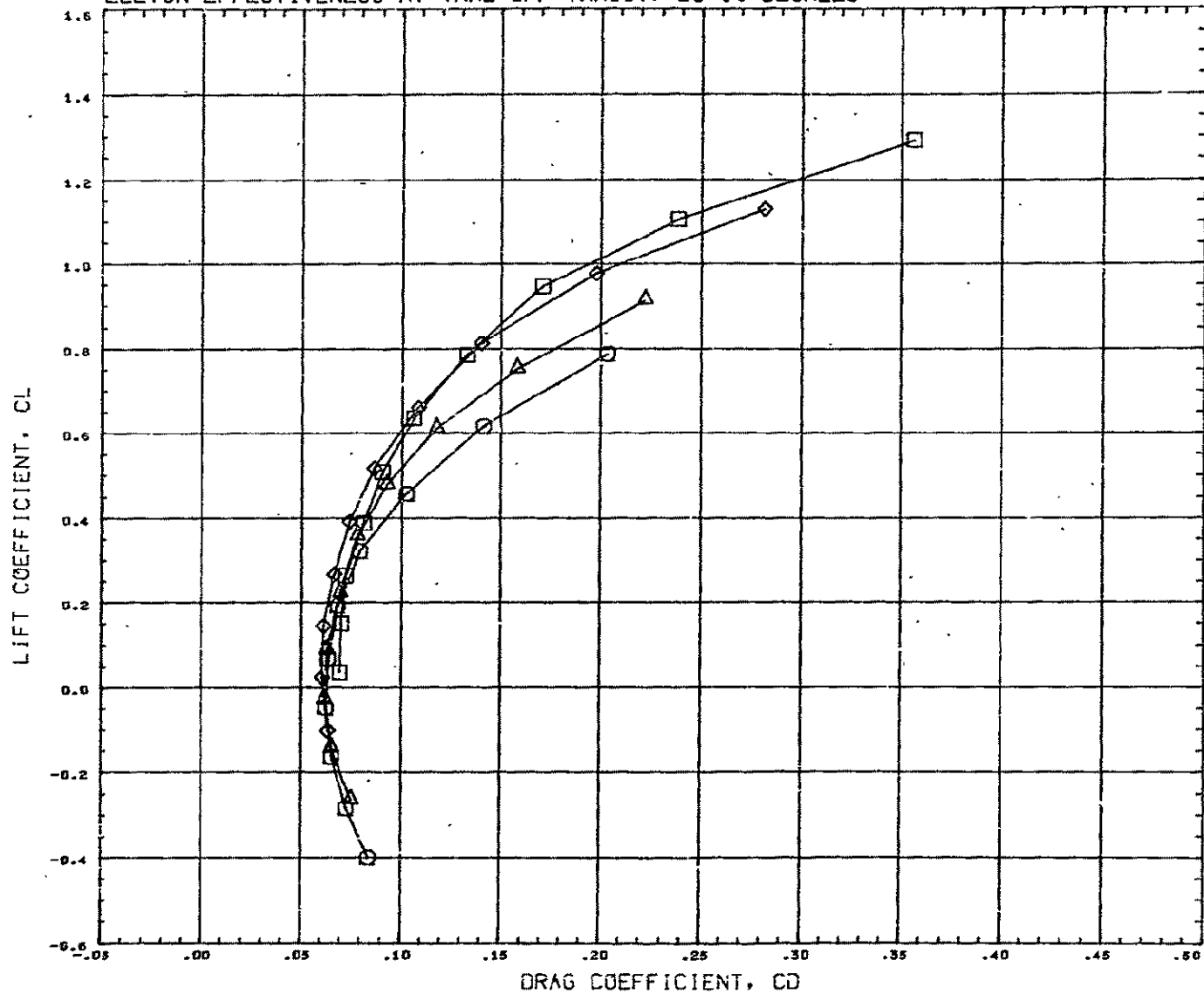
ELEVON EFFECTIVENESS AT TAKE-OFF THRUST, DC=10 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(CCVGF5)	○	GDLST 587-1 B21X1V7C4W1GG3E35 + GP DC= 10 DE=-20	0.000	0.620	-20.000	10.000	SREF	380.3004 SQ. IN
(CCVGF4)	△	GDLST 587-1 B21X1V7C4W1GG3E35 + GP DC= 10 DE=-10	0.000	0.620	-10.000	10.000	LREF	15.2150 IN.
(CCVGF6)	◇	GDLST 587-1 B21X1V7C4W1GG3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF	30.4400 IN.
(CCVGF3)	□	GDLST 587-1 B21X1V7C4W1GG3E35 + GP DC= 10 DE=10	0.000	0.620	10.000	10.000	XMRP	33.4360 IN.
							YMRP	0.0000 IN.
							ZMRP	3.9380 IN.
							SCALE	0.0175

MACH 0.201

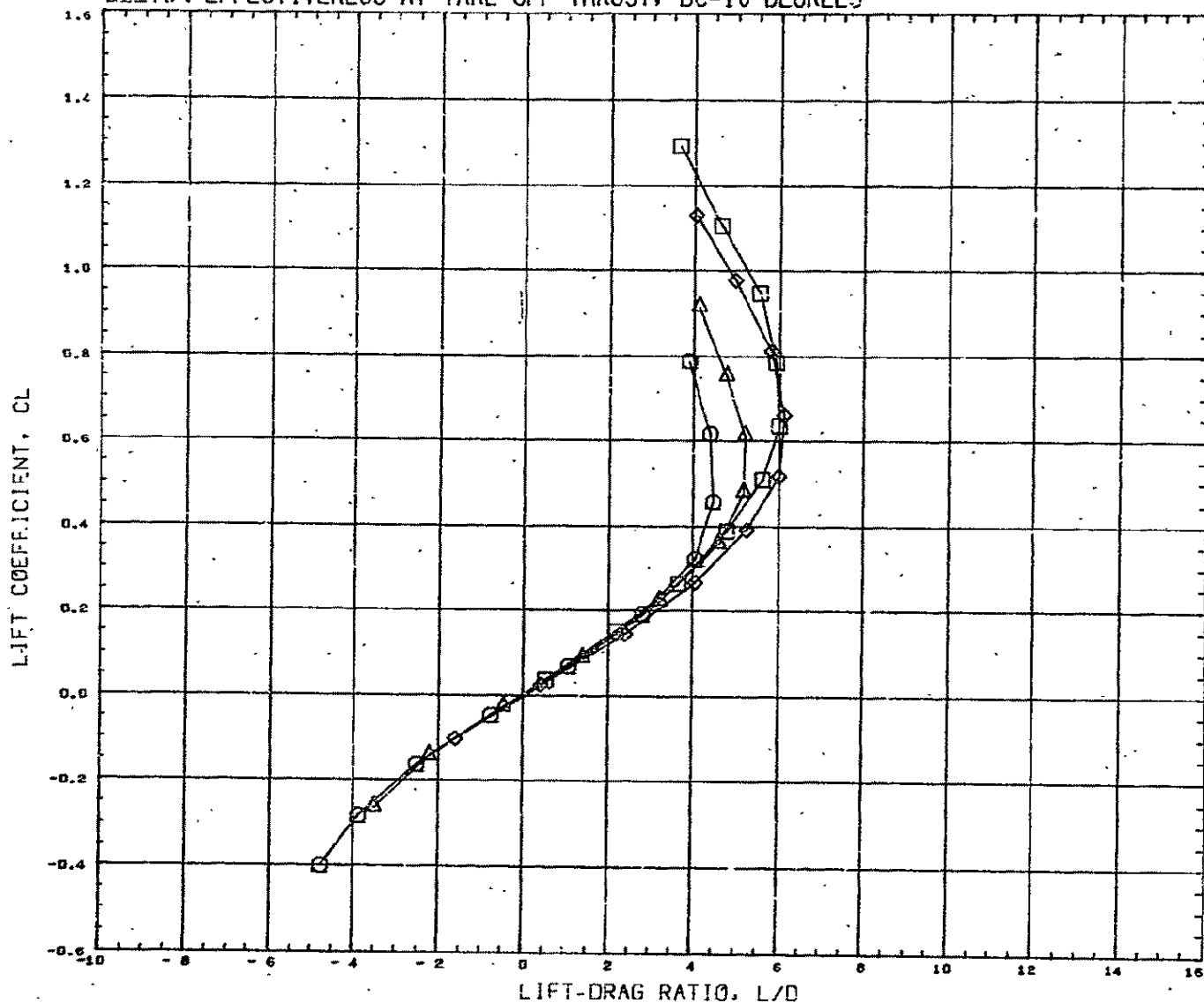
ELEVON EFFECTIVENESS AT TAKE-OFF THRUST, DC=10 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(GCVGF5)	○	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.620	-20.000	10.000	SREF	380.3004 SQ. IN
(GCVGF4)	◇	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.620	-10.000	10.000	LREF	15.2150 IN.
(GCVGF6)	△	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF	30.4400 IN.
(GCVGF3)	□	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.620	10.000	10.000	XMRP	33.4360 IN.
							YMRP	0.0000 IN.
							ZMRP	3.9360 IN.
							SCALE	0.0175

MACH 0.261

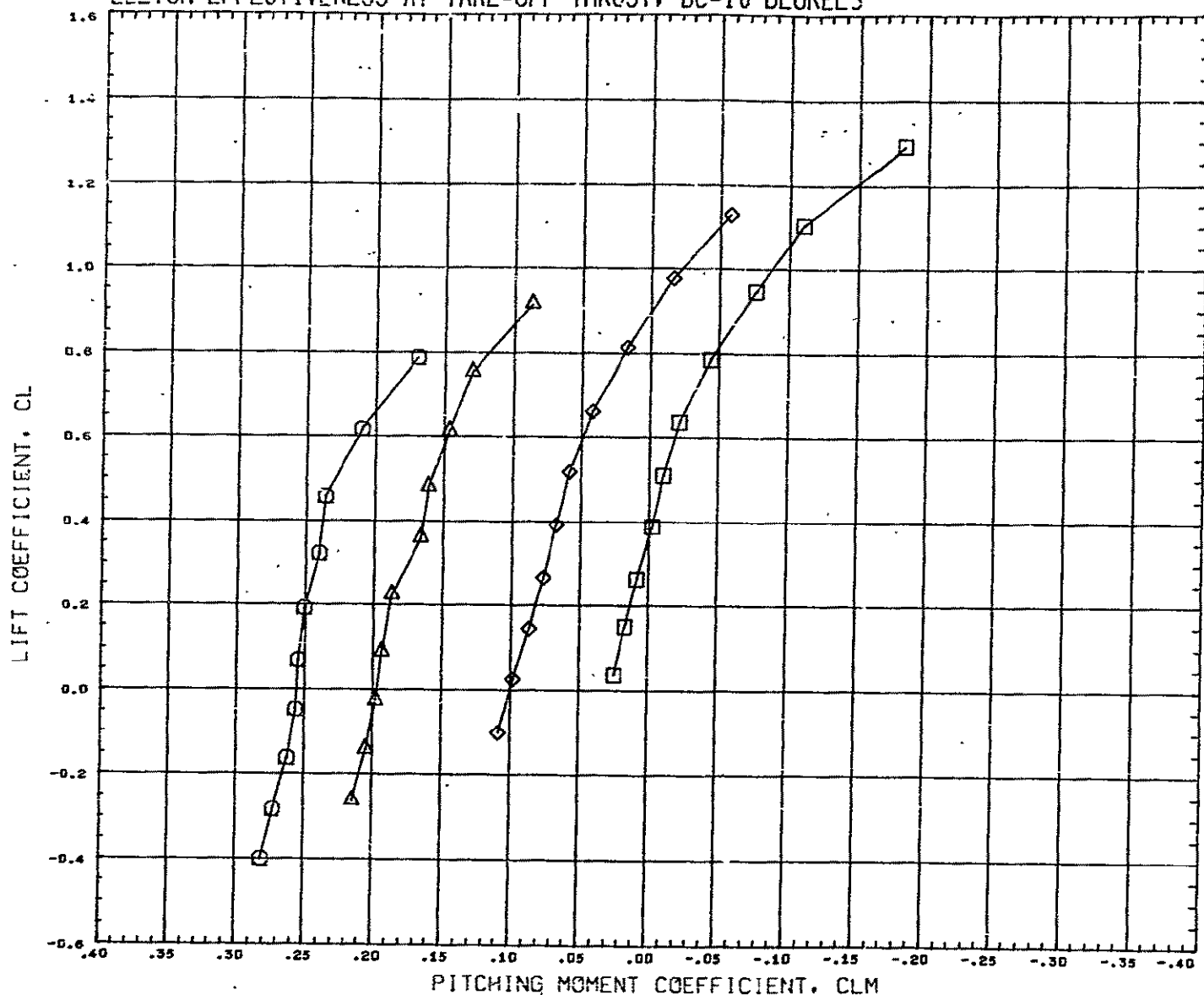
ELEVON EFFECTIVENESS AT TAKE-OFF THRUST, DC=10 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION		
(CCVGF5)	Δ	CDLST 587-1 B21X1V7C4W166SE35 + GP DC= 10 DE=-20	0.000	0.620	-20.000	10.000	SREF	380.0004	58. IN
(CCVGF4)	∇	CDLST 587-1 B21X1V7C4W166SE35 + GP DC= 10 DE=-10	0.000	0.620	-10.000	10.000	LREF	15.2150	IN.
(CCVGF6)	\circ	CDLST 587-1 B21X1V7C4W166SE35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF	30.4400	IN.
(CCVGF3)	\square	CDLST 587-1 B21X1V7C4W166SE35 + GP DC= 10 DE=10	0.000	0.620	10.000	10.000	XMRP	33.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9380	IN.
							SCALE	0.0175	

MACH 0.201

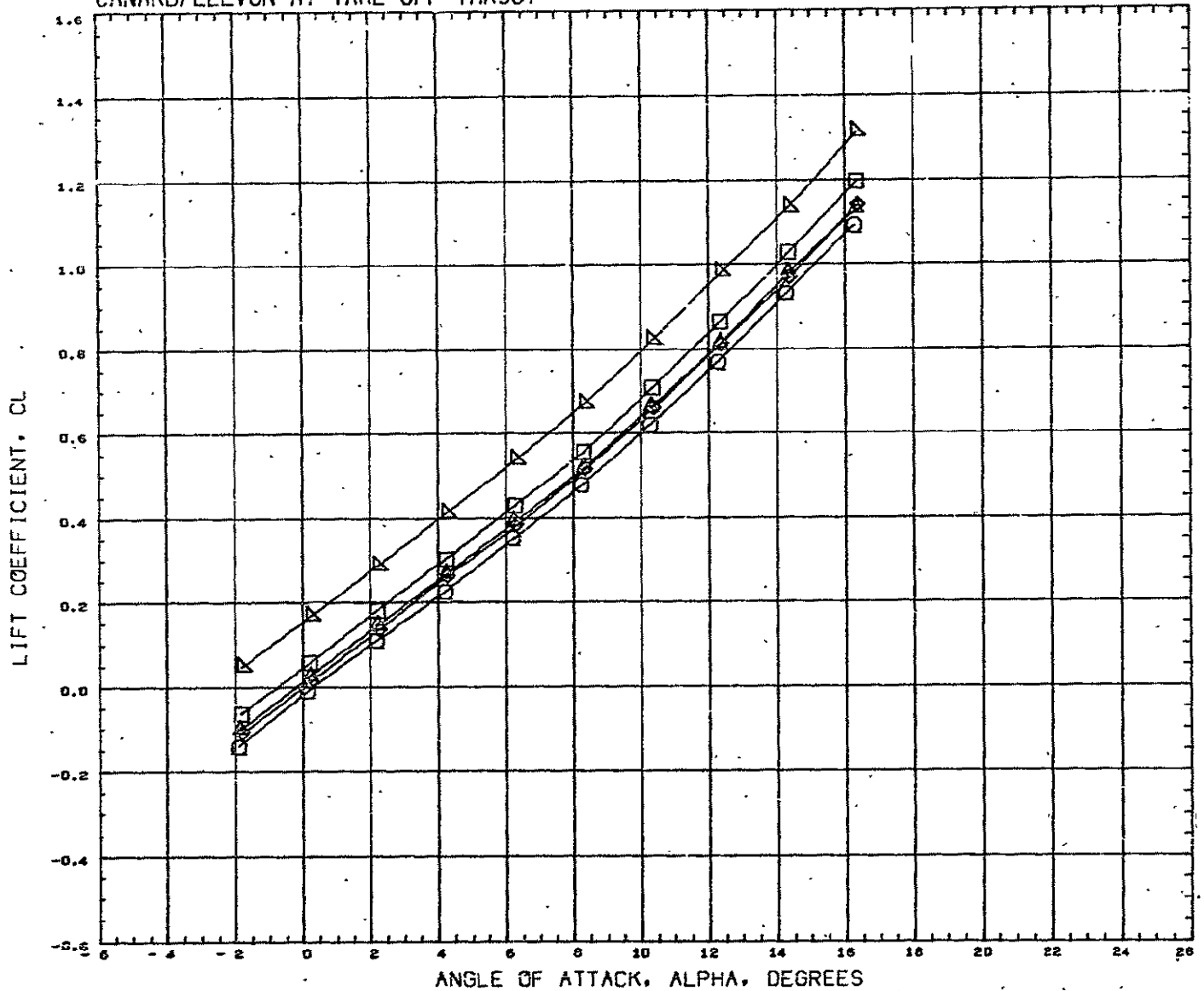
ELEVON EFFECTIVENESS AT TAKE-OFF THRUST, DC=10 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(GCVGF5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-20	0.000	0.620	-20.000	10.000	SREF	380.5004 SQ. IN
(GCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=-10	0.000	0.620	-10.000	10.000	LREF	15.2150 IN.
(GCVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	BREF	30.4400 IN.
(GCVGF3)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10	0.000	0.620	10.000	10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.90

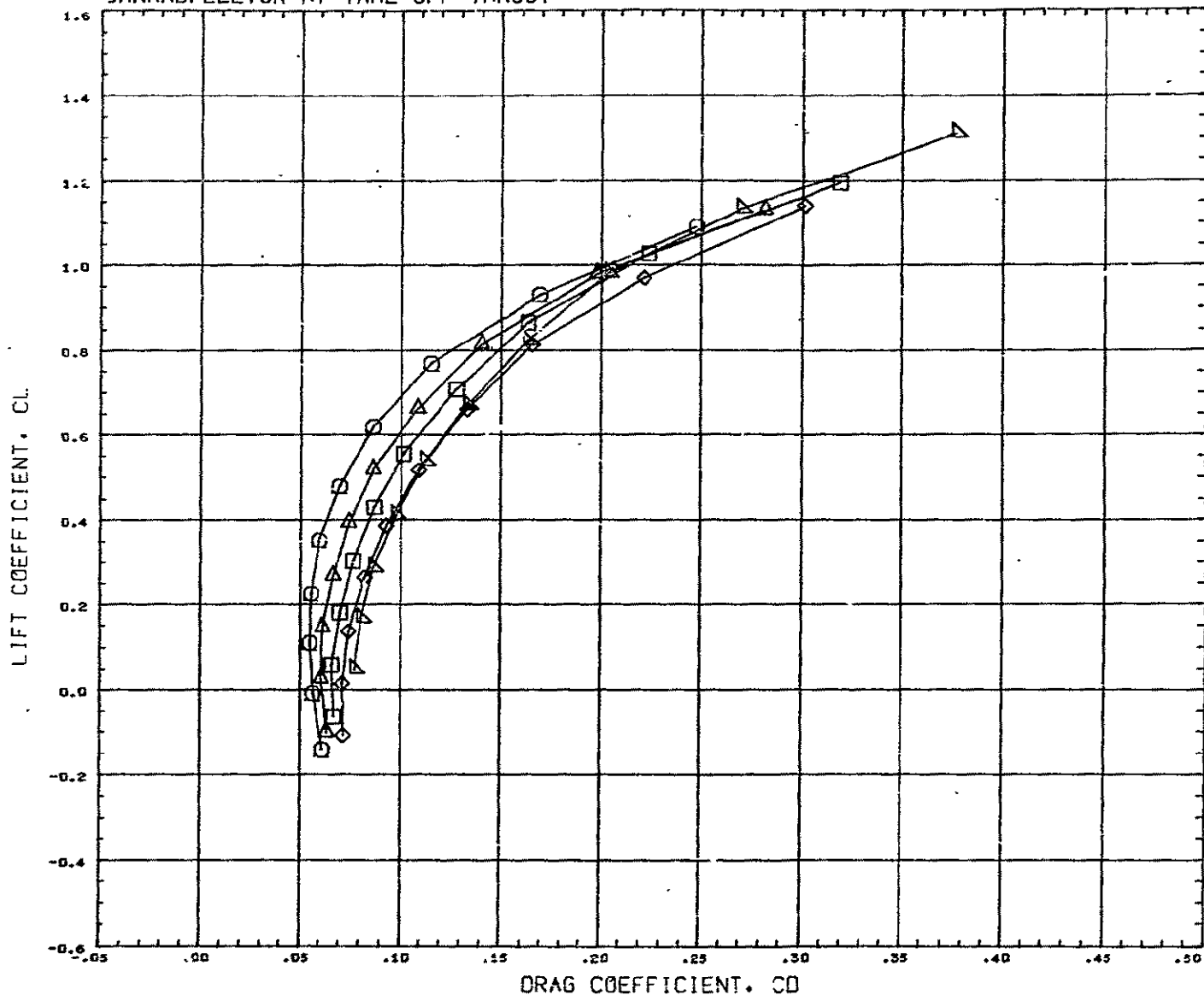
CANARD/ELEVON AT TAKE-OFF THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION		
(GCVGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.620	0.000	0.000	SREF	380.3004	Sq. IN
(GCVGF6)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	LREF	15.2150	IN.
(GCVGF9)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=0	0.000	0.620	0.000	20.000	BREF	30.4400	IN.
(GCVGF7)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.620	3.000	15.000	XMRP	33.4360	IN.
(GCVGF8)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=10	0.000	0.620	10.000	20.000	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

MACH 0.201

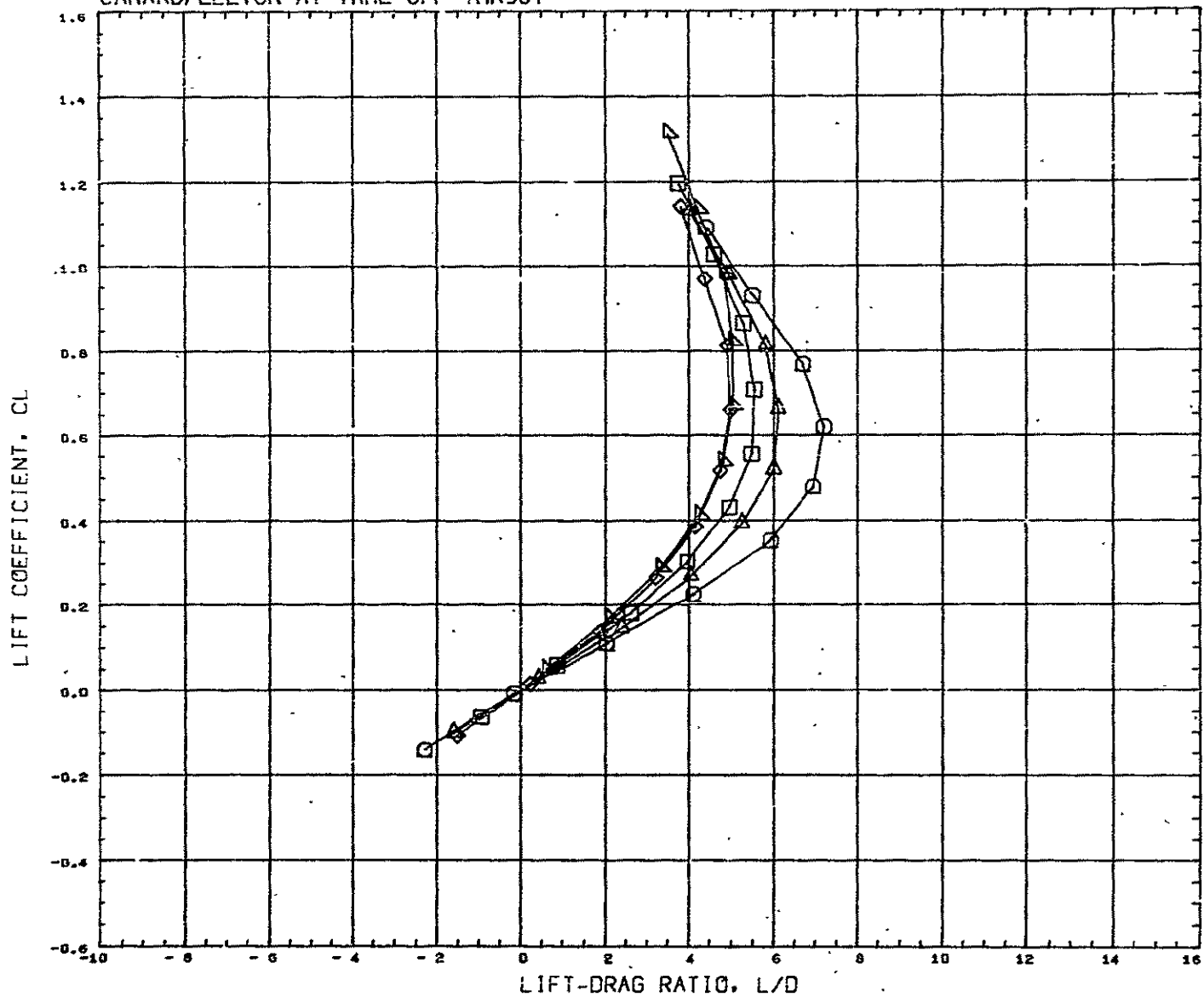
CANARD/ELEVON AT TAKE-OFF THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(CCVGF1)	GDLST 587-1 821X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.620	0.000	0.000	SREF	380.3004 Sq. IN
(CCVGF6)	GDLST 587-1 821X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	LREF	15.2150 IN.
(CCVGF9)	GDLST 587-1 821X1V7C4W16G3E35 + GP DC= 20 DE=0	0.000	0.620	0.000	20.000	BREF	30.4400 IN.
(CCVGF7)	GDLST 587-1 821X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.620	3.000	15.000	XMRP	33.4360 IN.
(CCVGF8)	GDLST 587-1 821X1V7C4W16G3E35 + GP DC= 20 DE=10	0.000	0.620	10.000	20.000	YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

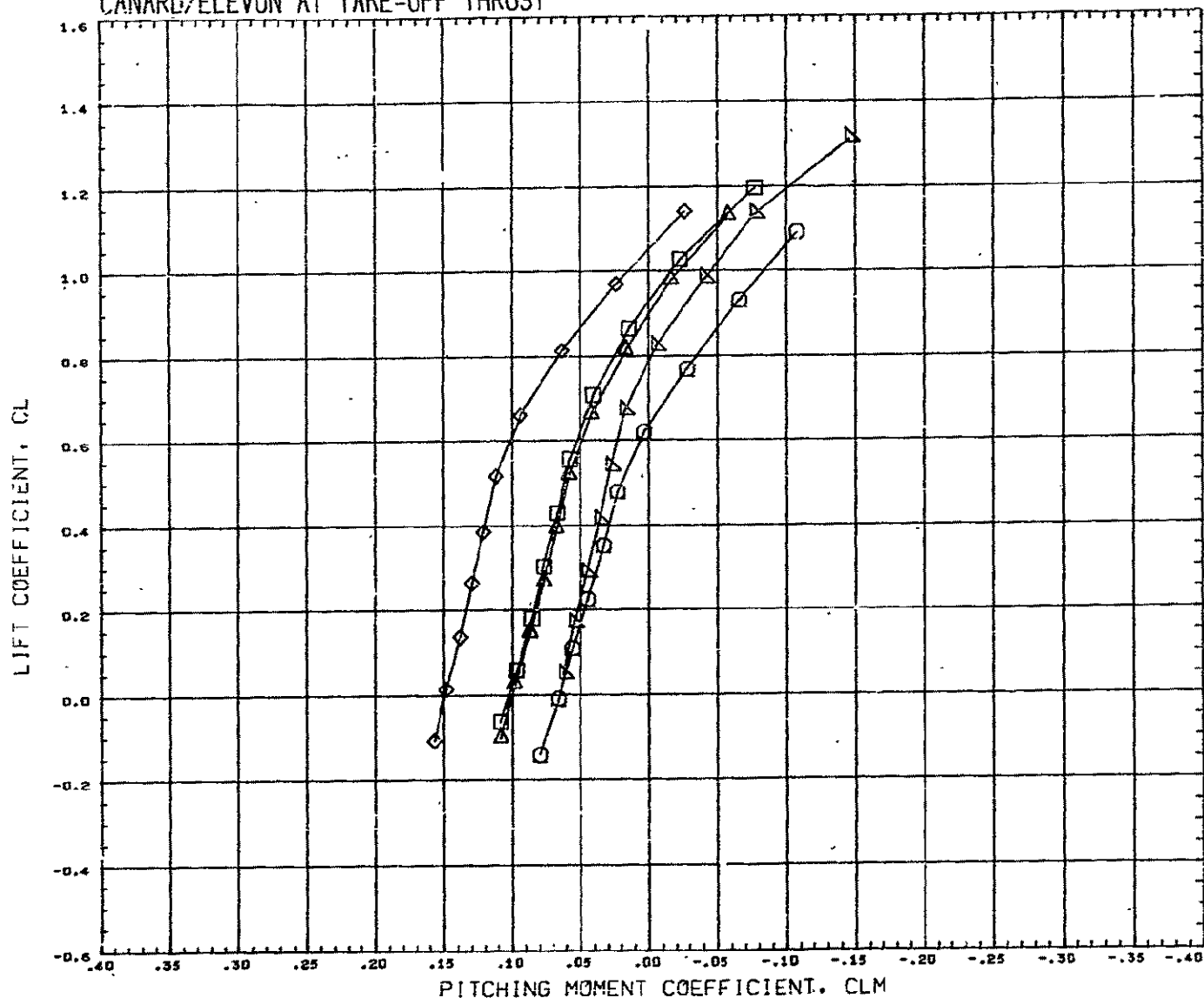
CANARD/ELEVON AT TAKE-OFF THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION		
(GCVGF1)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.620	0.000	0.000	SREF	380.3004	SQ. IN
(GCVGF2)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	LREF	15.2150	IN.
(GCVGF3)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=0	0.000	0.620	0.000	20.000	BREF	30.4400	IN.
(GCVGF4)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.620	3.000	15.000	XMRP	33.4360	IN.
(GCVGF5)	GDLST 587-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=10	0.000	0.620	10.000	20.000	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

MACH 0.281

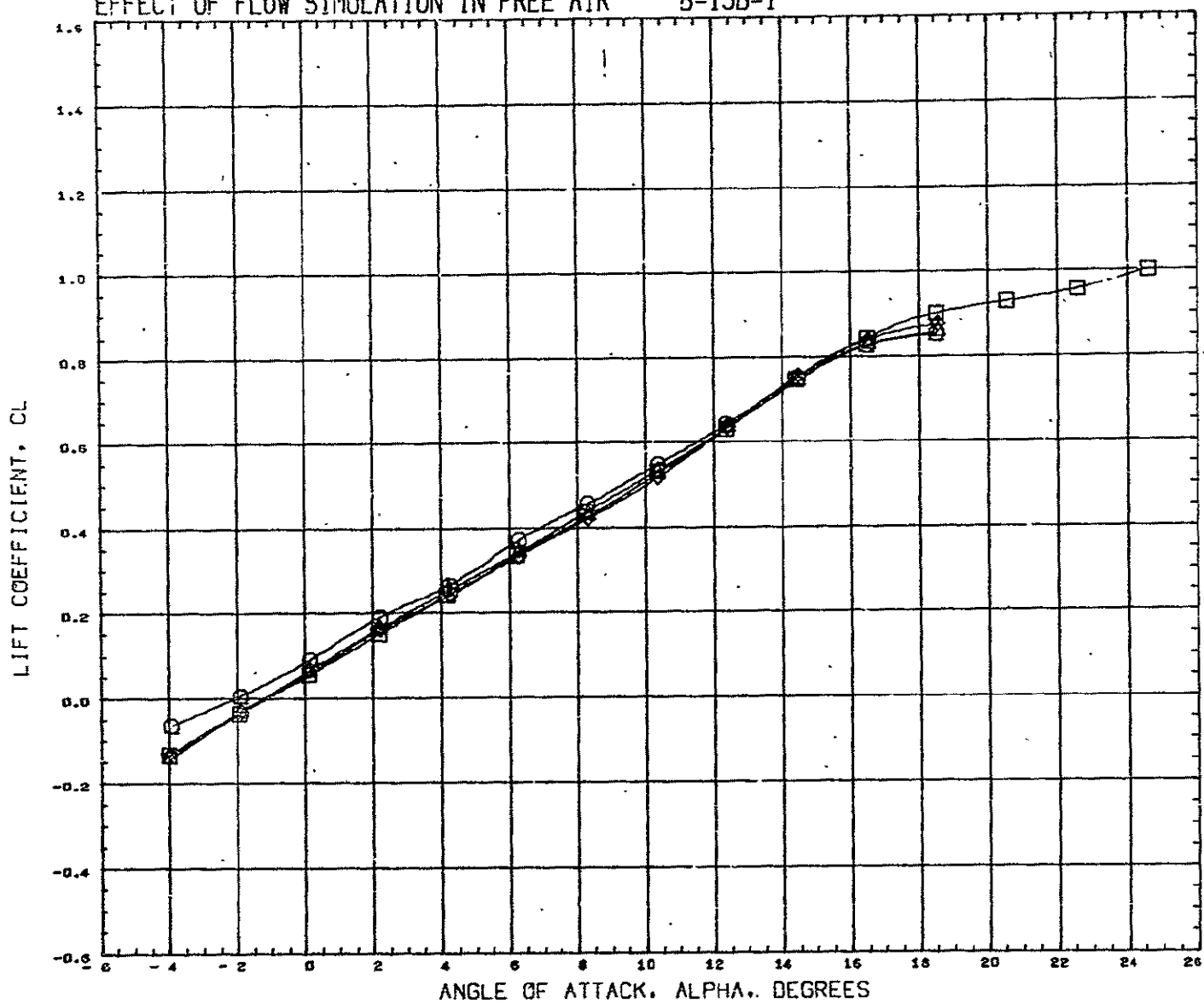
CANARD/ELEVON AT TAKE-OFF THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(GCVGF1)	GDLST 507-1 B21X1V7C4W16G3E35 + GP DC= 0 DE=0	0.000	0.620	0.000	0.000	SREF 380.3004 SQ. IN.
(GCVGF6)	GDLST 507-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=0	0.000	0.620	0.000	10.000	LREF 15.2150 IN.
(GCVGF9)	GDLST 507-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=0	0.000	0.620	0.000	20.000	BREF 30.4400 IN.
(GCVGF7)	GDLST 507-1 B21X1V7C4W16G3E35 + GP DC= 15 DE=3	0.000	0.620	3.000	15.000	XMRP 33.4360 IN.
(GCVGF8)	GDLST 507-1 B21X1V7C4W16G3E35 + GP DC= 20 DE=10	0.000	0.620	10.000	20.000	YMRP 0.0000 IN.
						ZMRP 3.9560 IN.
						SCALE 0.0175

MACH 0.201

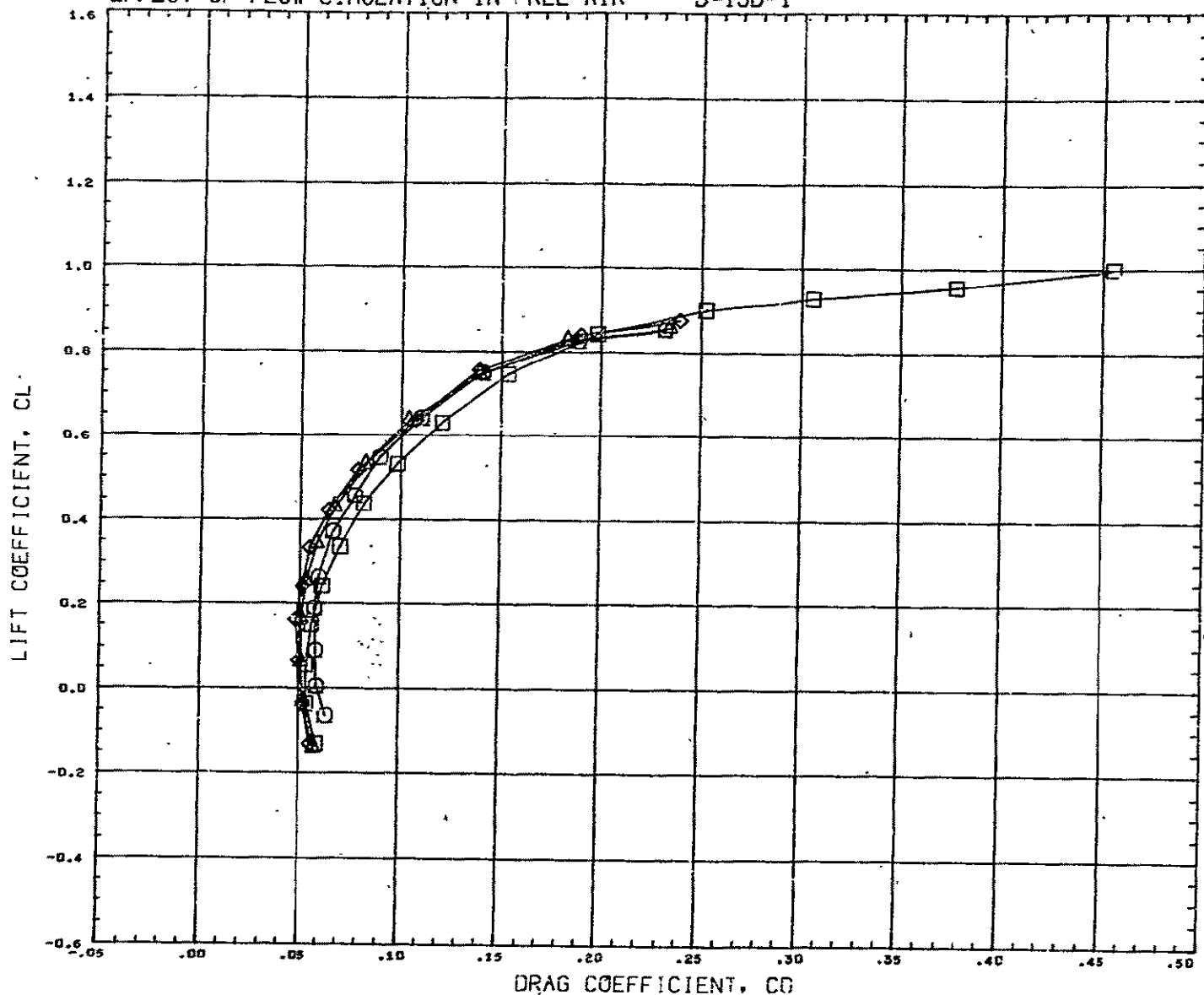
EFFECT OF FLOW SIMULATION IN FREE AIR S-15B-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION	
(ECVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF	380.3004 SQ. IN
(FCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.520	0.000	0.000	LREF	15.2150 IN.
(GCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.620	0.000	0.000	BREF	30.4400 IN.
(ECV012)	GDLST 587-1 B21X1V7C4E34W16G3 GEAR ON	0.000	0.000	0.000	0.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

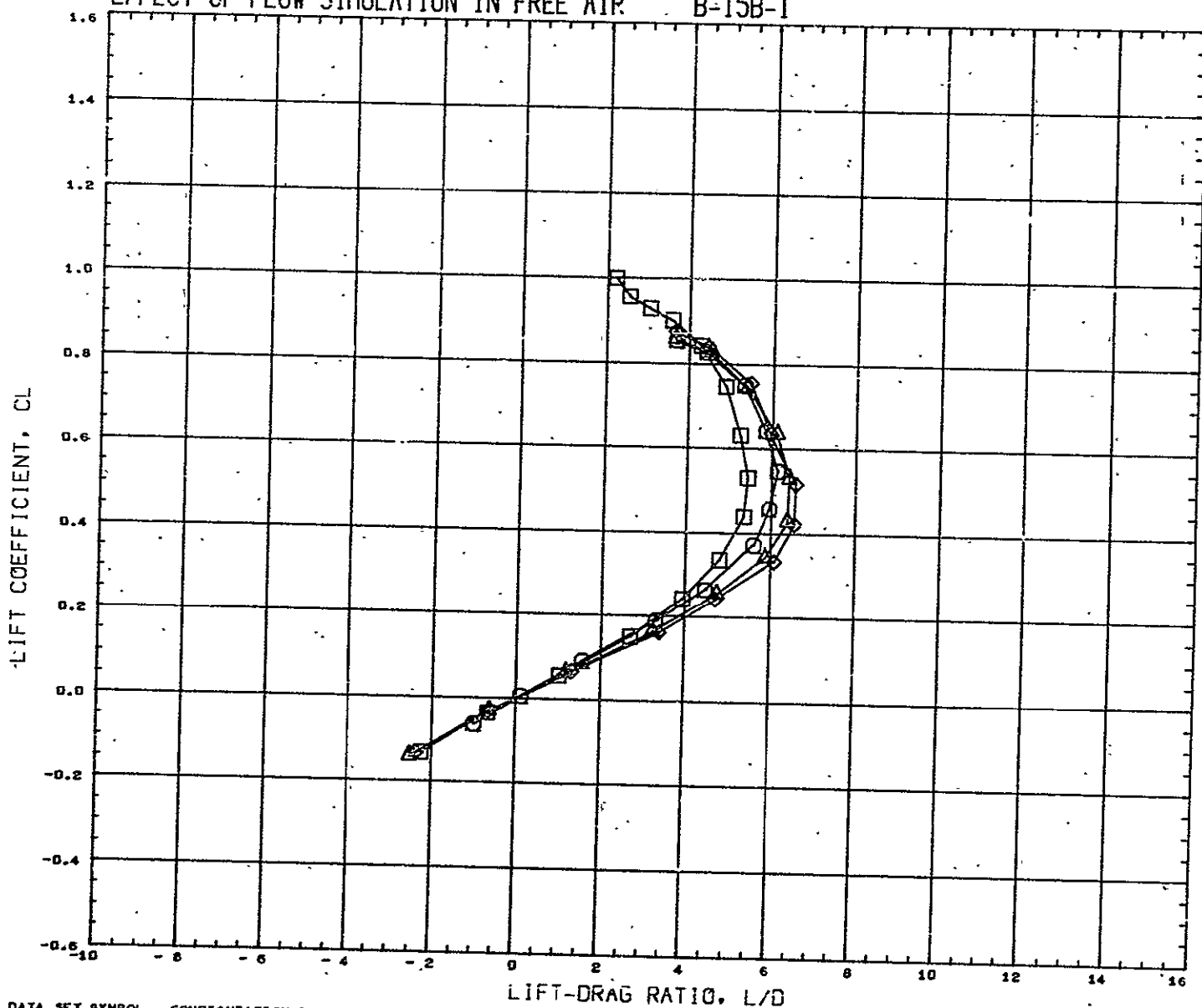
EFFECT OF FLOW SIMULATION IN FREE AIR S-15B-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF 360.3004 Sq. IN
(FCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.520	0.000	0.000	LREF 15.2150 IN.
(GCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.620	0.000	0.000	BREF 30.4400 IN.
(ECV012)	GDLST 587-1 B21X1V7C4E34W16G3 GEAR ON	0.000		0.000	0.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9300 IN.
						SCALE 0.0175

MACH 0.205

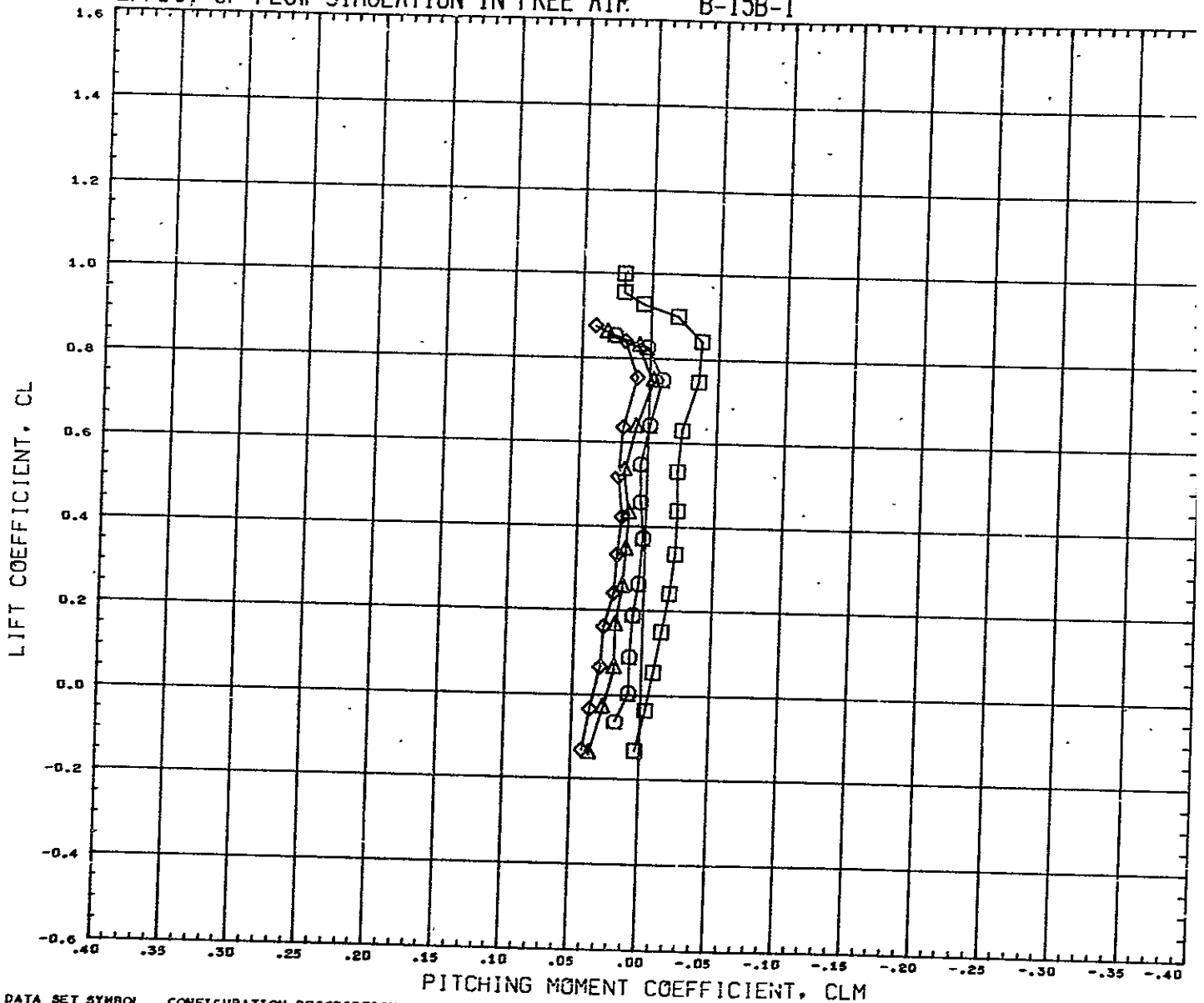
EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECVP05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.650	0.000	0.000	SREF 380.3004 sq. IN
(FCVP05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.520	0.000	0.000	LREF 15.2150 IN.
(GCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.620	0.000	0.000	BREF 30.4400 IN.
(ECVD12)	GDLST 587-1 B21X1V7C4E34W16G3 GEAR ON	0.000		0.000	0.000	XHRP 33.4360 IN.
						YHRP 0.0000 IN.
						ZHRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

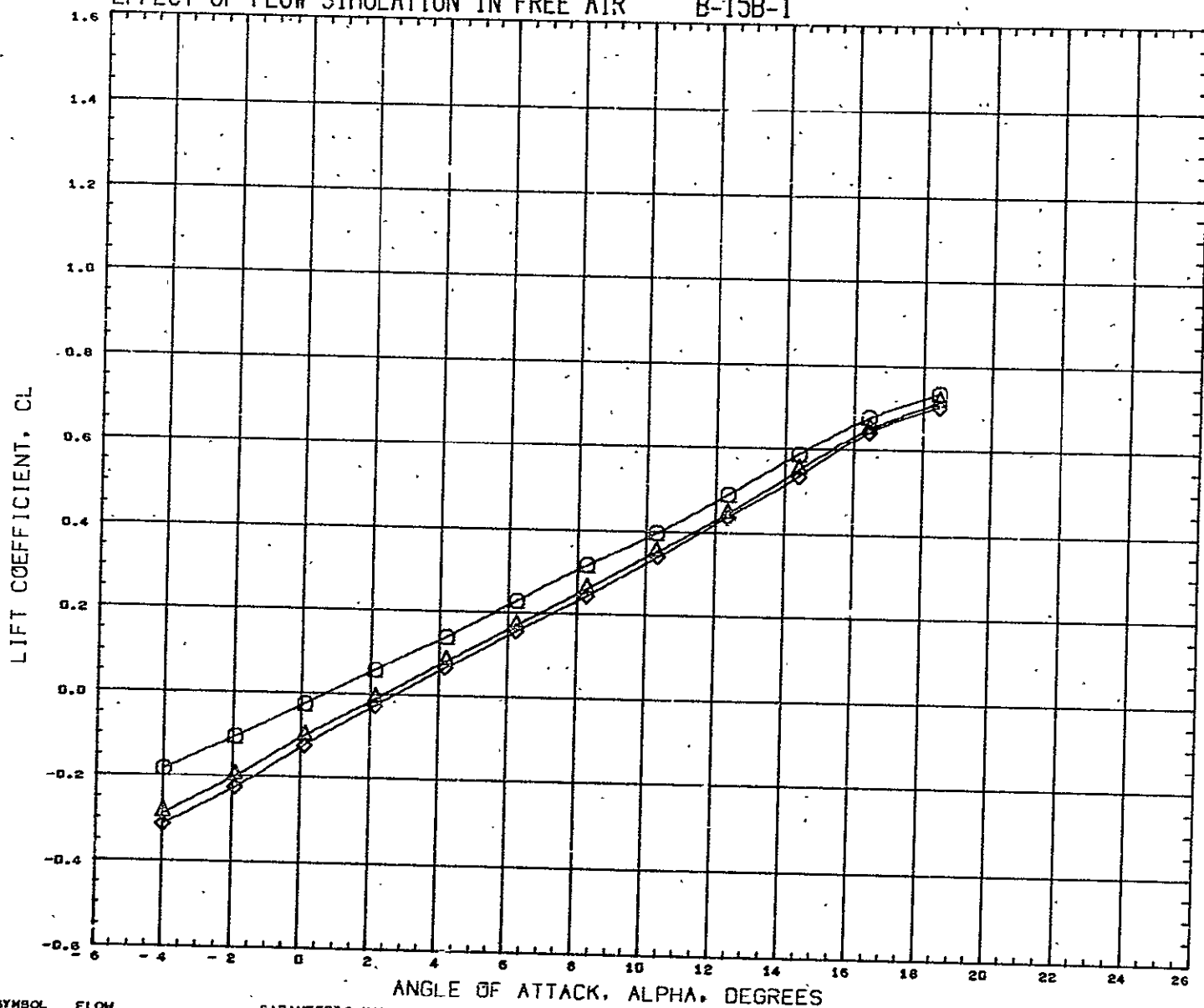
EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	CANVTR	REFERENCE INFORMATION
(ECVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(FCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.520	0.000	0.000	LREF 15.2150 IN.
(CCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.620	0.000	0.000	BREF 30.4400 IN.
(ECVD12)	GDLST 587-1 B21X1V7C4E34W16G3 GEAR ON	0.000		0.000	0.000	XNRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZNRP 3.9380 IN.
						SCALE 0.0175

MACH 0.261

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

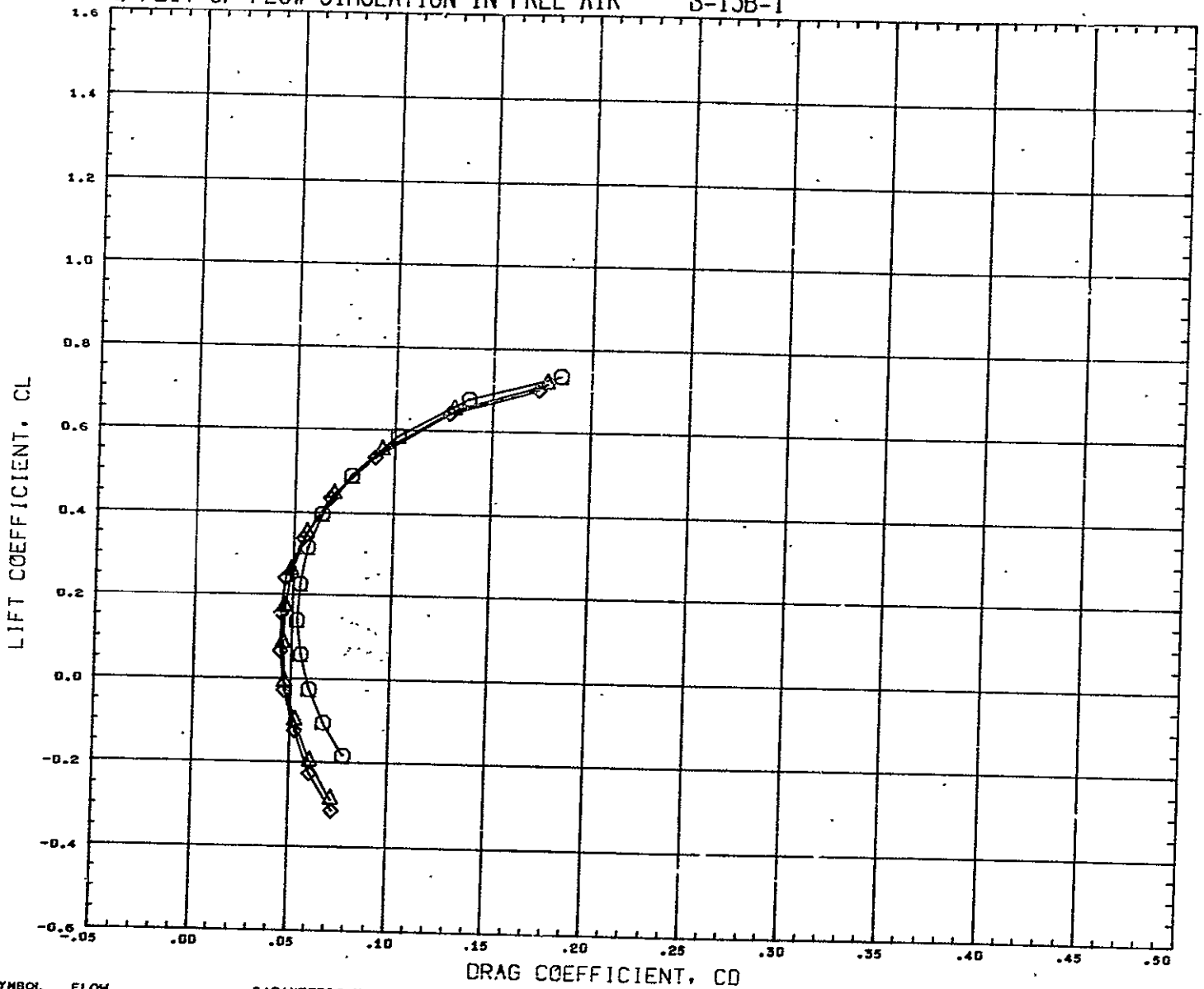


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	-10.000
◇	0.620	AILRON	0.000	CANVTR	-10.000
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	- 10.000
◇	0.620	AILRON	0.000	CANVTR	- 10.000
		CANROM	0.000		

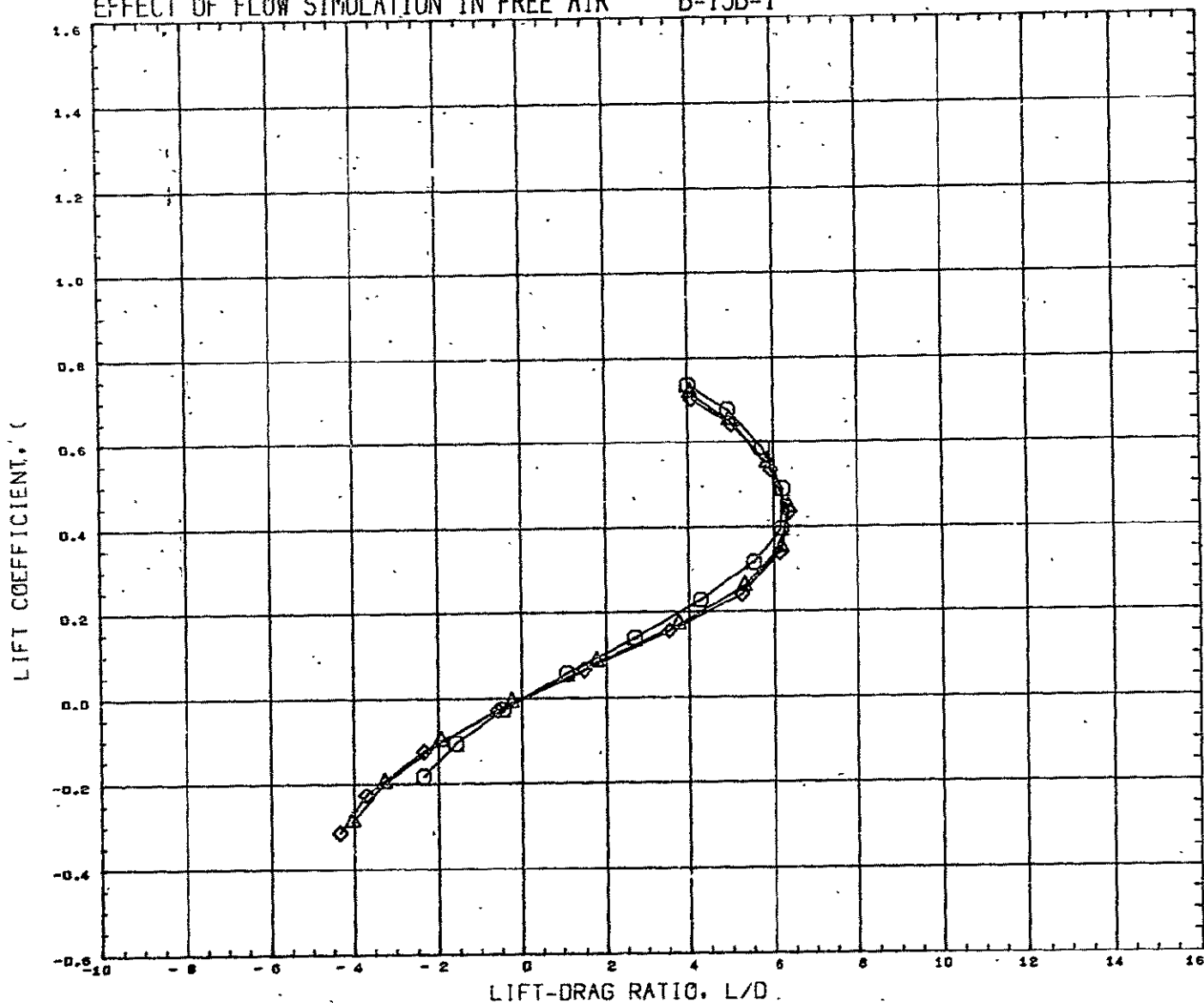
DATA HIST. CODE MVV

REFERENCE INFORMATION		
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LREF	15.2150	IN.
BREF	30.4400	IN.
XNRP	33.4360	IN.
YNRP	0.0000	IN.
ZNRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-1 B21X1V7C4W16G3E35 DE = -10 DC = -10 (ACVF03) 24 JUL 71

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EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

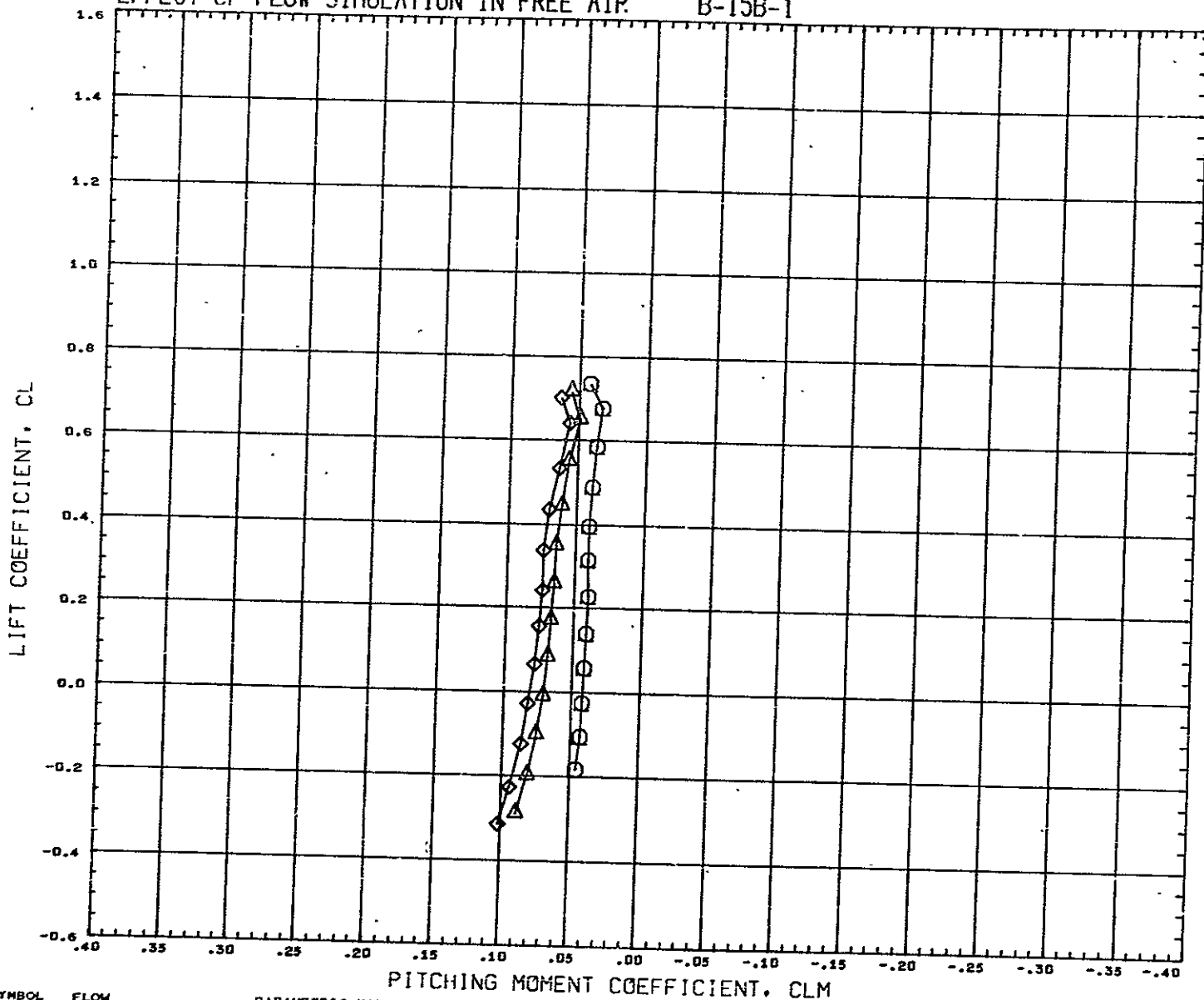


SYMBOL	FLOW	PARAMETRIC VALUES			
	0.000	BETA	0.000	MACH	0.201
	0.520	RUDDER	0.000	ELEVTR	-10.000
	0.620	AILERON	0.000	CANVTR	-10.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	360.3004	SR. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



SYMBOL FLOW PARAMETRIC VALUES

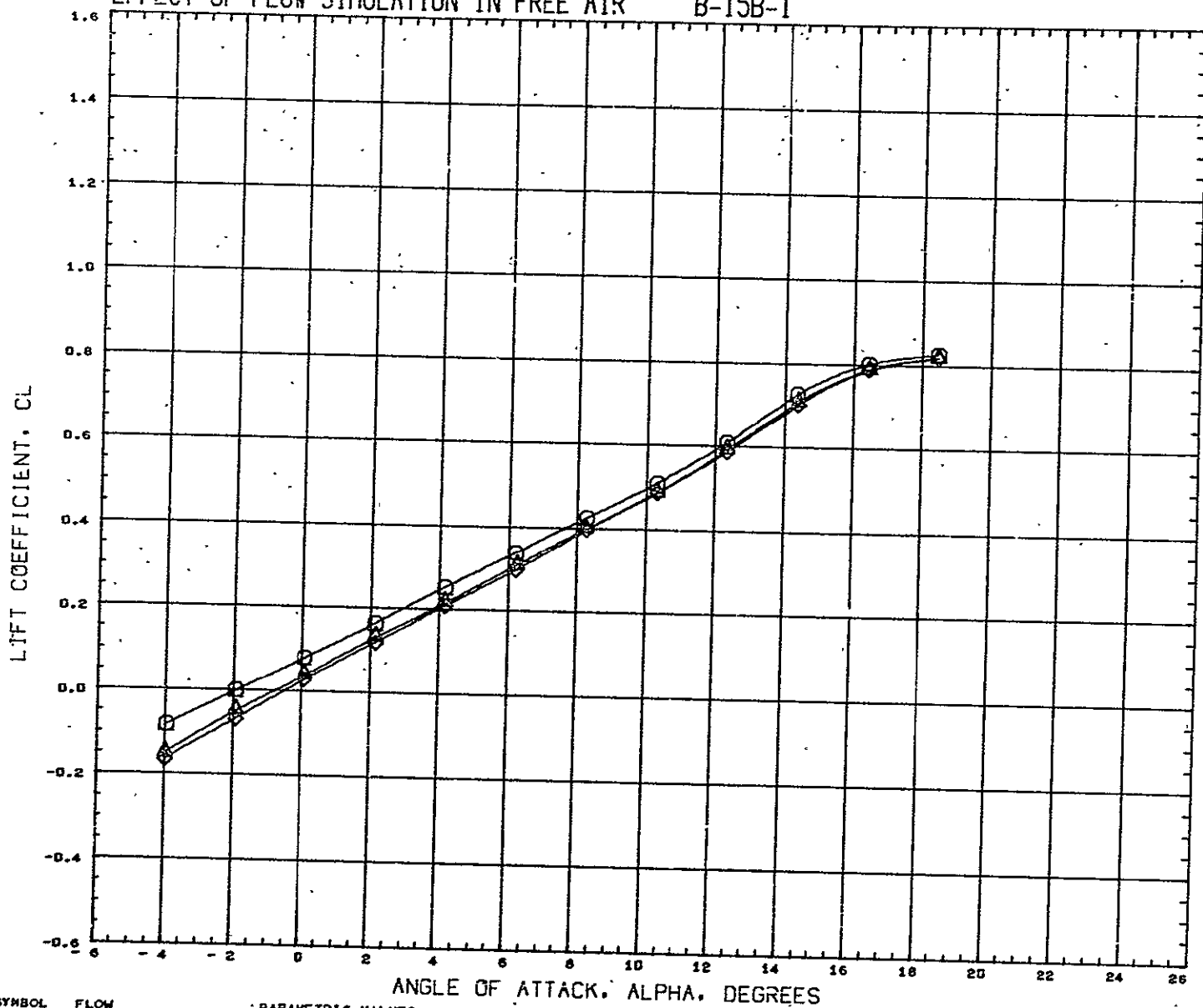
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	-10.000
◇	0.620	AILRON	0.000	CANVTR	-10.000
		CANRON	0.000		

REFERENCE INFORMATION

SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	5.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

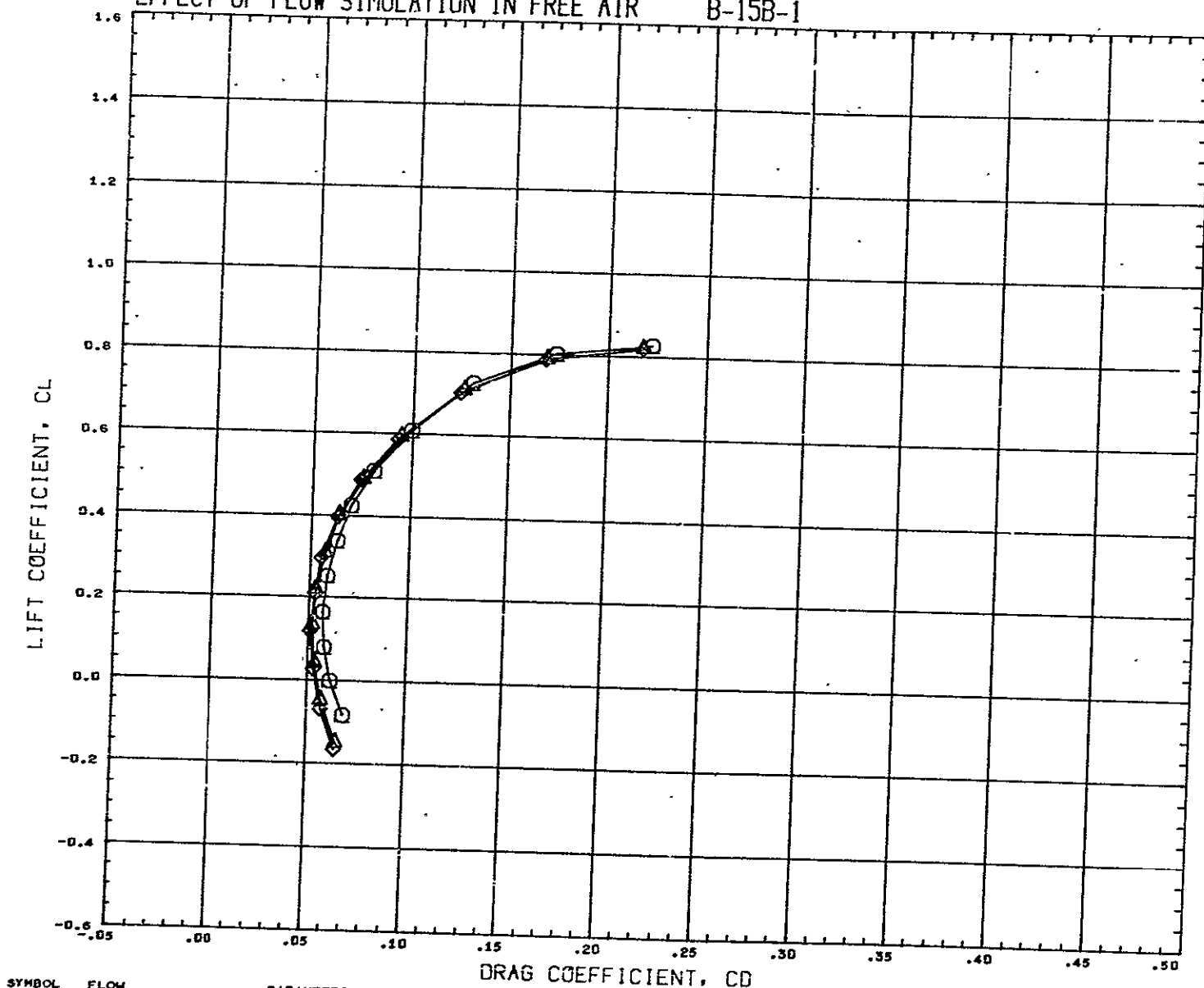


SYMBOL	FLOW	PARAMETRIC VALUES			
	0.000	BETA	0.000	MACH	0.201
	0.520	RUDDER	0.000	ELEVTR	0.000
	0.620	AILRON	0.000	CANVTR	-16.000
		CANRON	0.000		

DATA HIST. CODE HVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XHRP	33.4360	IN.
YHRP	0.0000	IN.
ZHRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

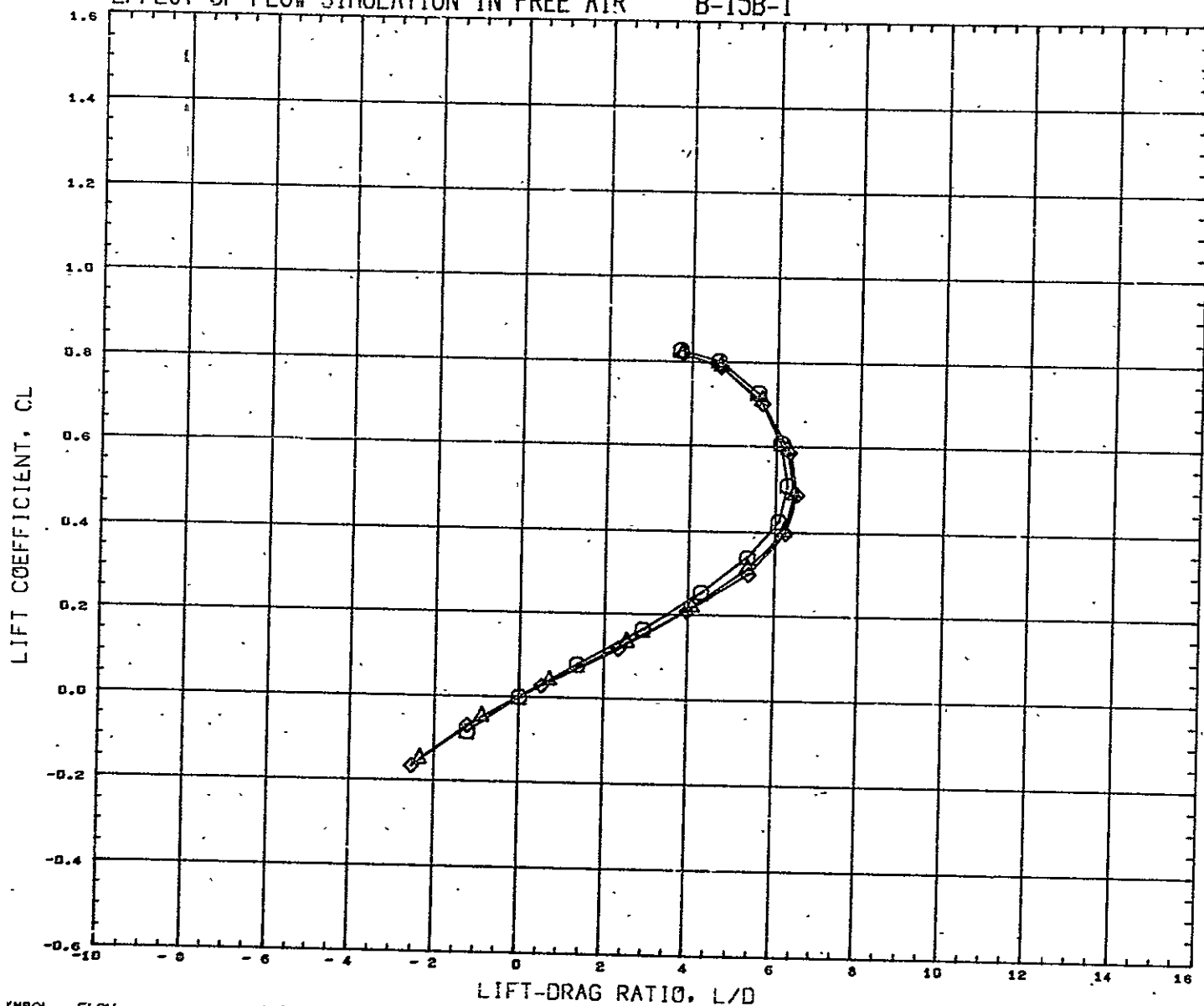


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	-10.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE NVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

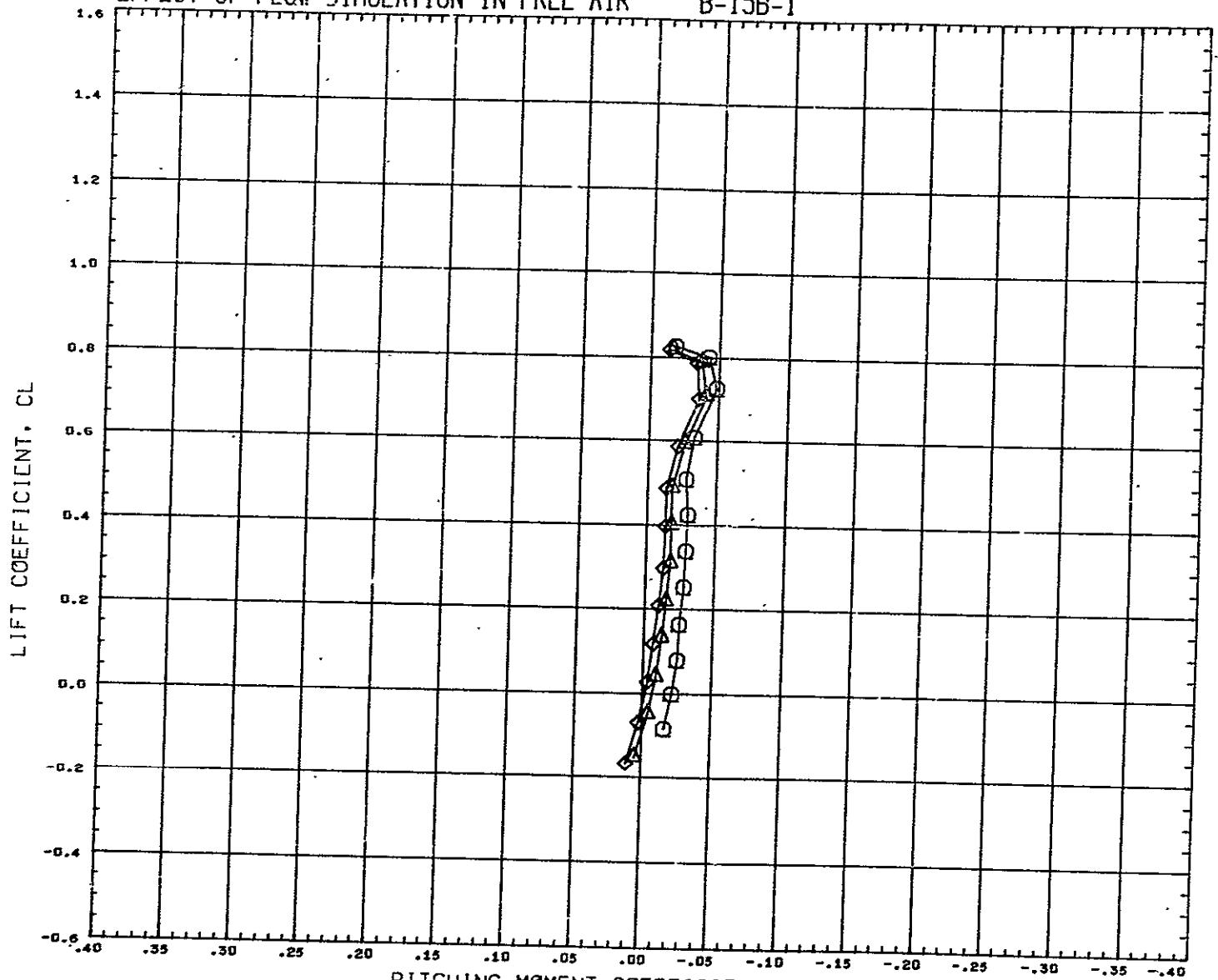


YMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	SETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	-10.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE HVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



PITCHING MOMENT COEFFICIENT, CLM

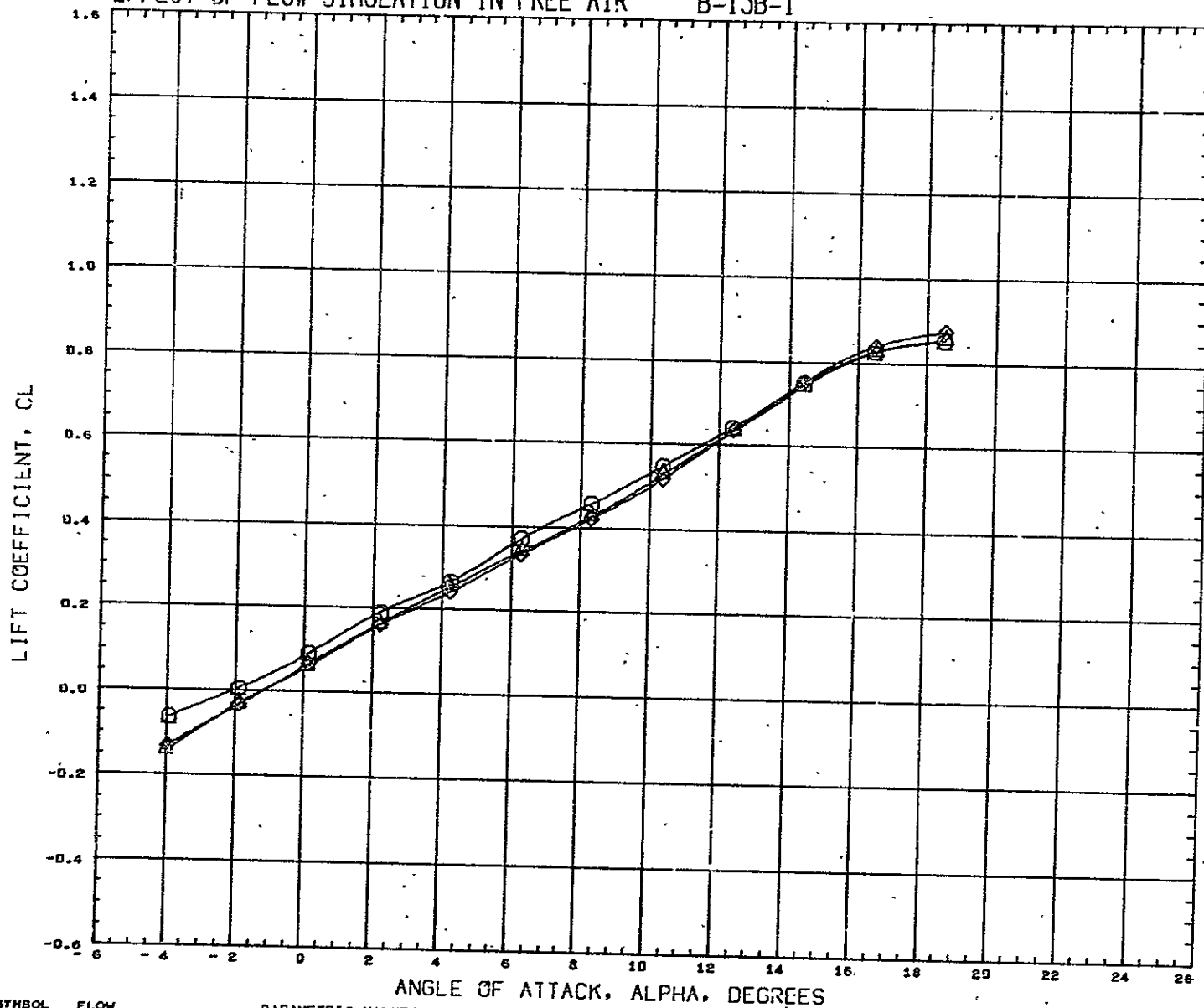
SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	-10.000
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GD-1ST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = -10 (ACVF04) 24 JUL 71 PAGE 264

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

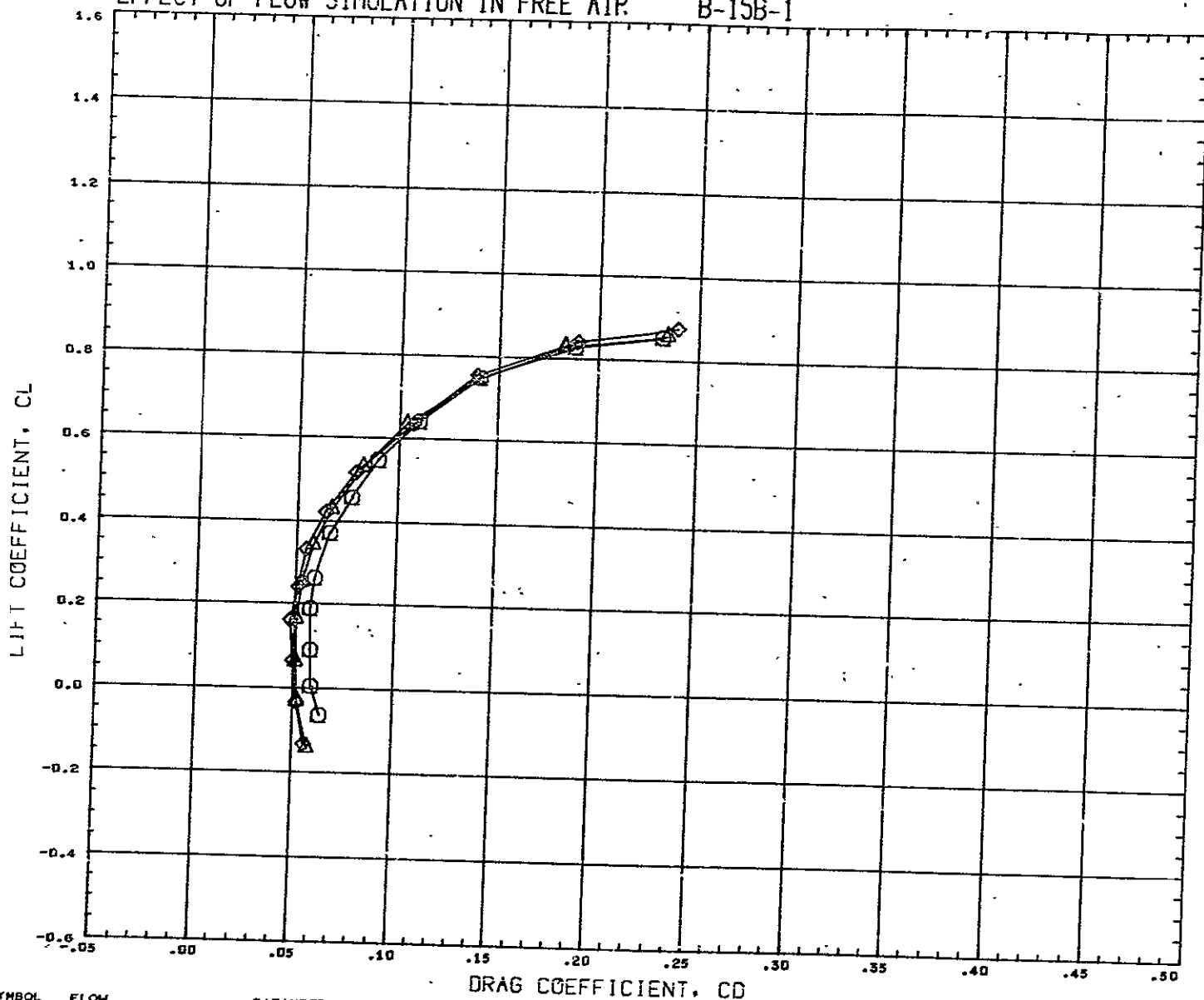


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	0.000
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	sq. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR. B-15B-1



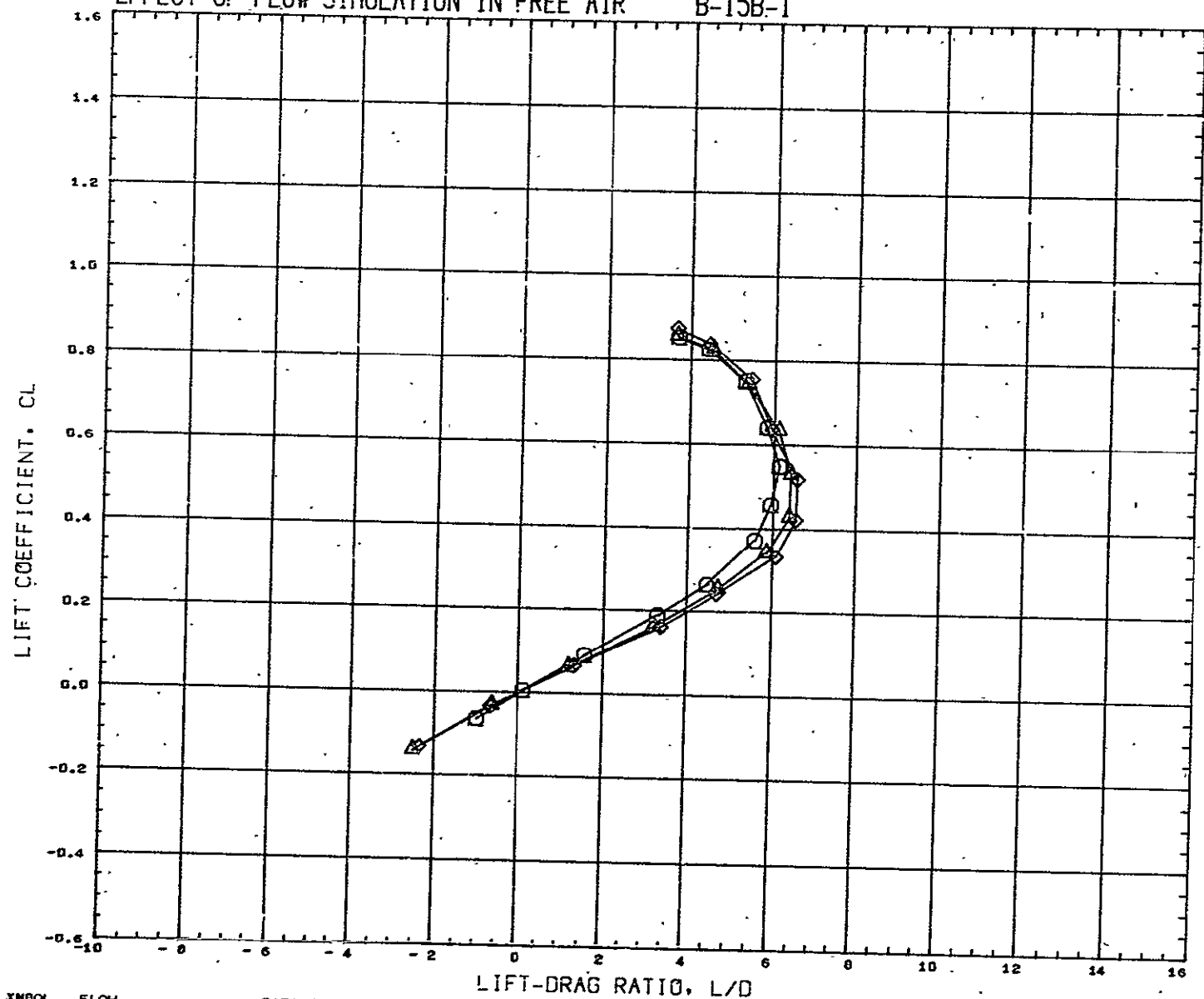
SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.600
◇	0.620	AILERON	0.000	CANVTR	0.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0 (ACVF05) 24 JUL 71 PAGE 266

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



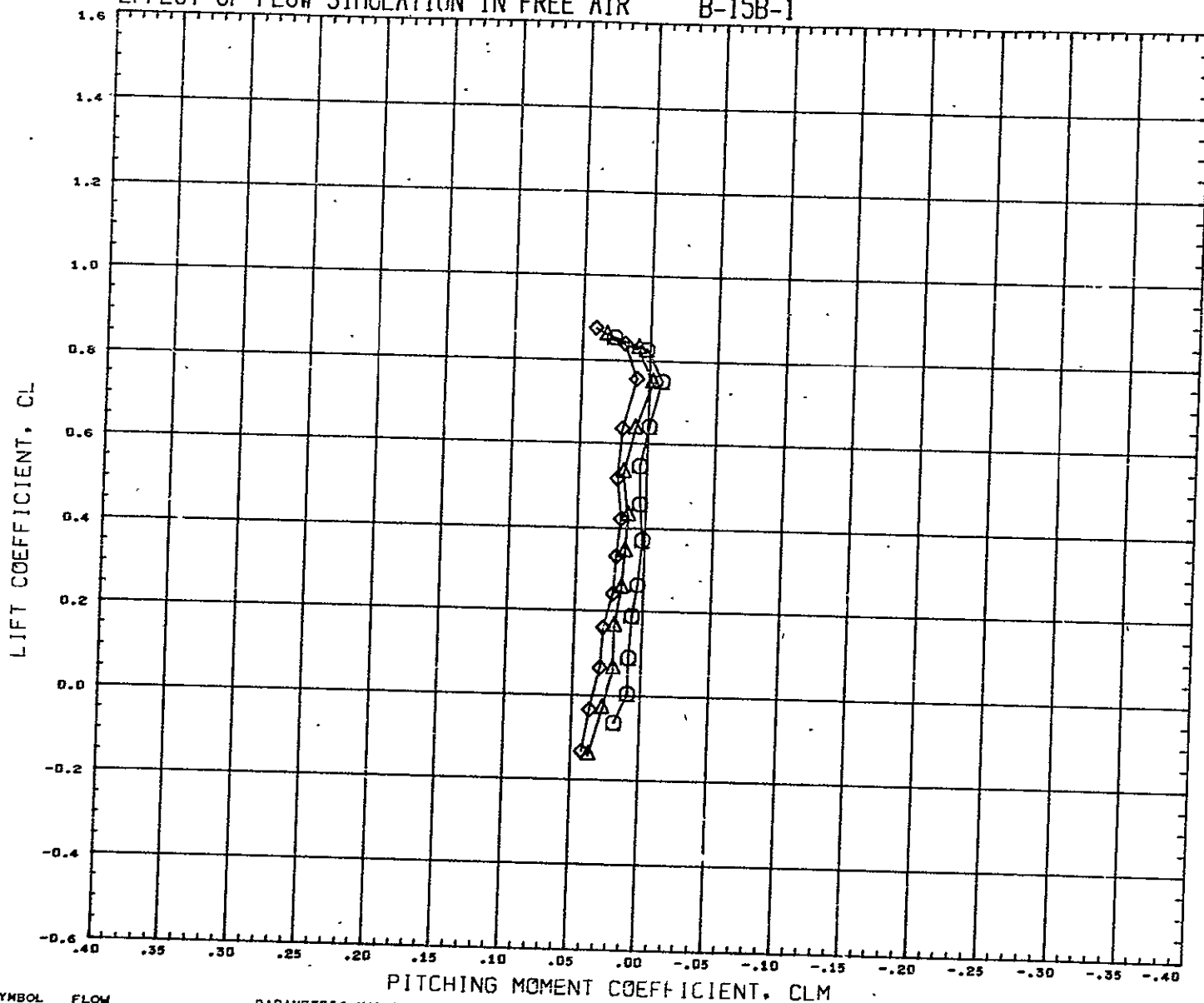
YMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	0.000
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	300.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRR	33.4360	IN.
YMRR	0.0000	IN.
ZMRR	3.9360	IN.
SCALE	0.0175	

GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0 (ACVF05) 24 JUL 71 P/JE 267

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

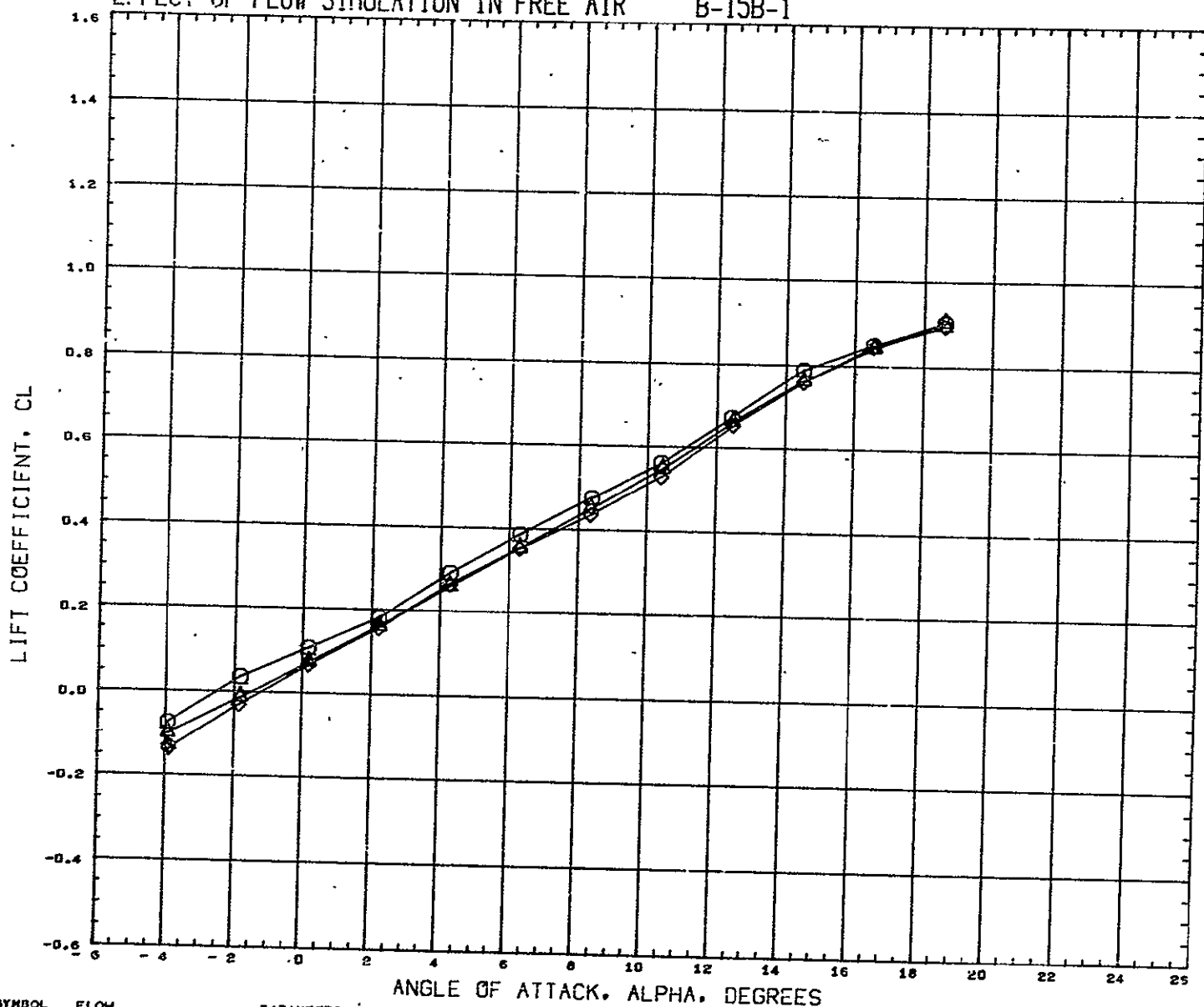


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	0.000
		CANROM	0.000		

REFERENCE INFORMATION		
SREF	380.3001	sq. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9300	IN.
SCALE	0.0175	

DATA HIST. CODE . MVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

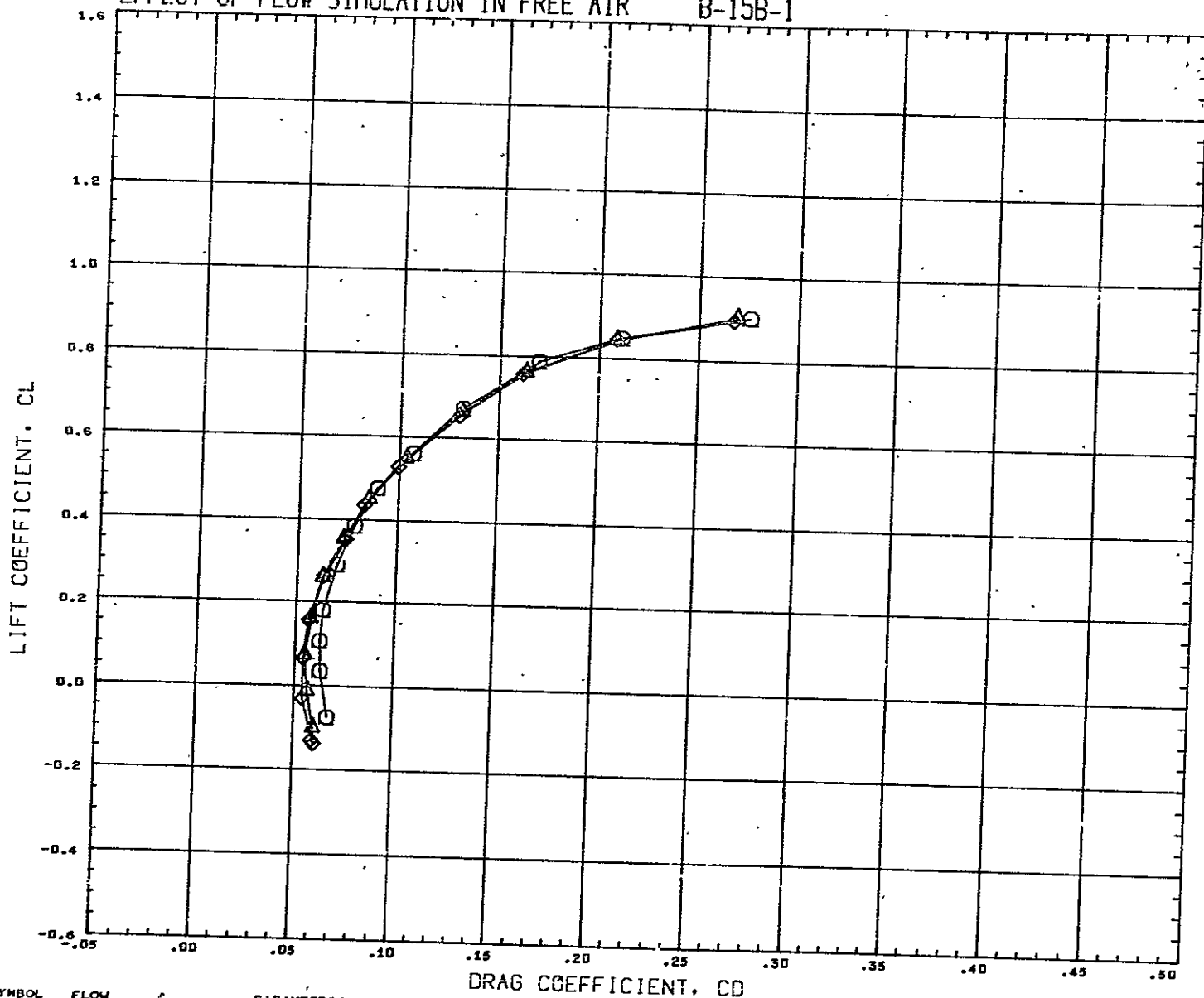


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILERON	0.000	CANVTR	10.000
		CANTRON	0.000		

DATA HIST. CODE NVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9280	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



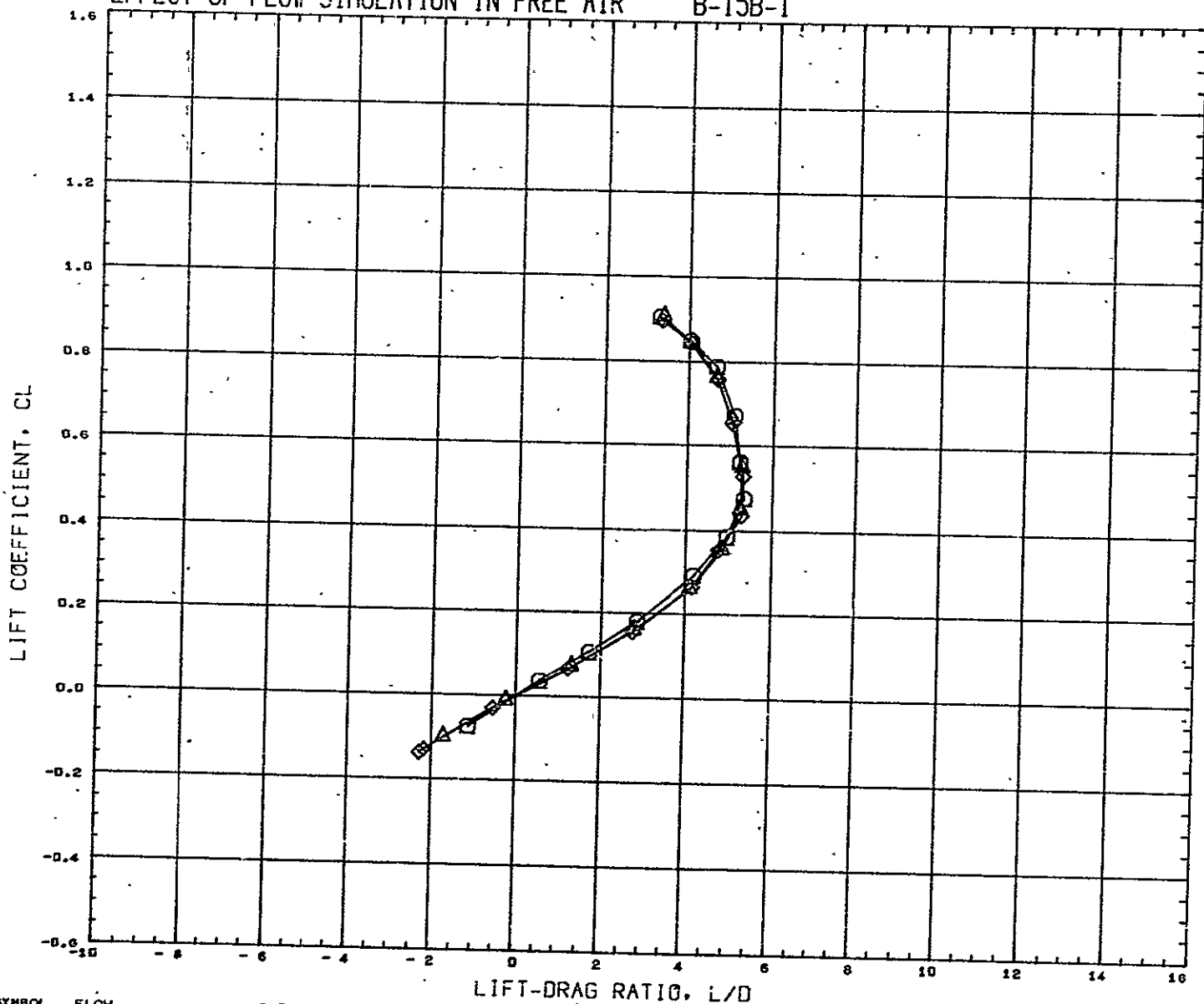
SYMBOL	FLOW	PARAMETRIC VALUES
○	0.000	BETA 0.000 MACH 0.201
△	0.520	RUDDER 0.000 ELEVTR 0.030
◇	0.620	AILRON 0.000 CANVTR 10.000
		CANON 0.000

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.9175	

DATA HIST. CODE HVV

GDLST 587-1 B21X1V7C4W16G3E35 DE - 0 DC = 10 (ACVF06) 24 JUL 71 P'SE 270

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

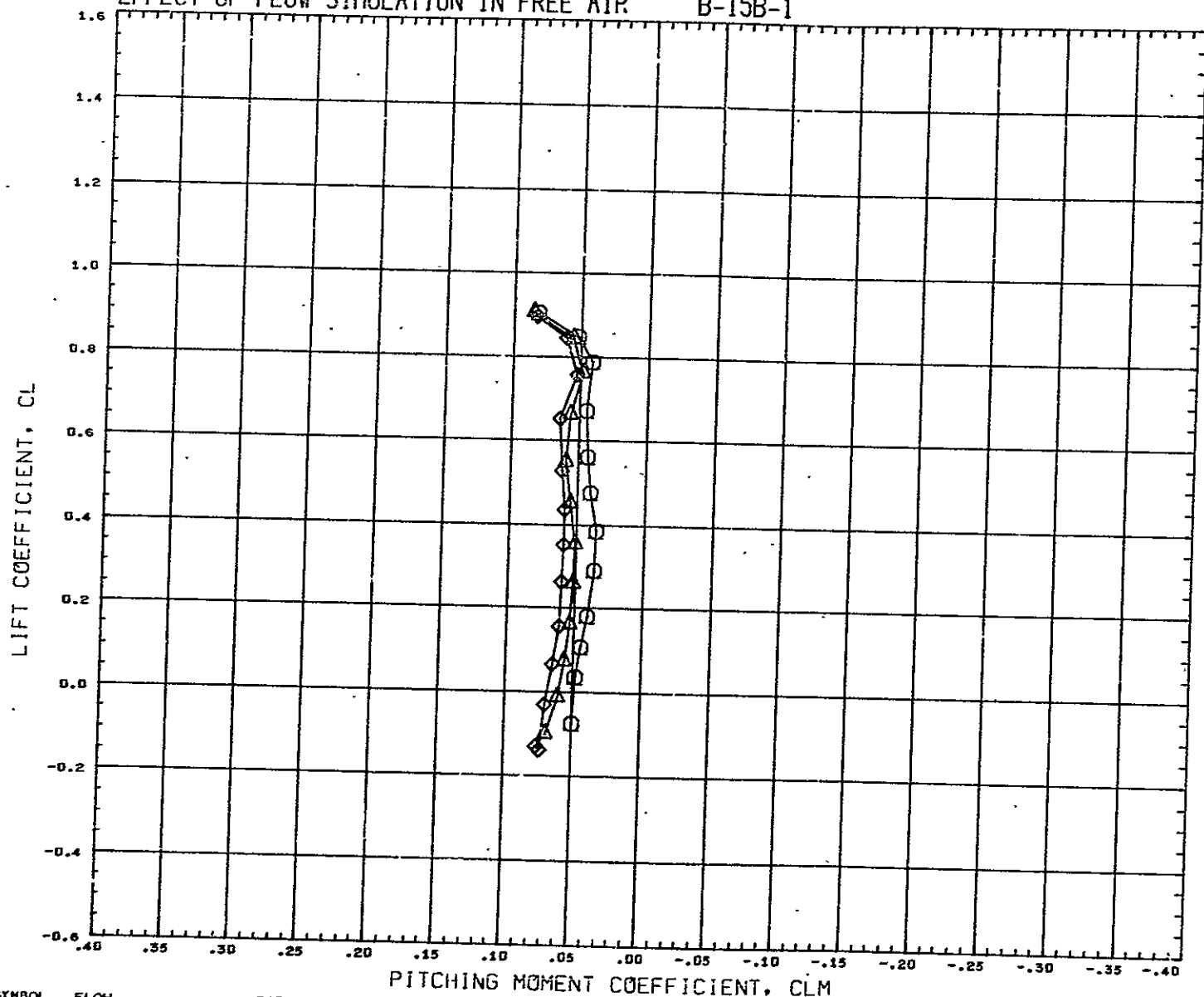


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	10.000
		CANRON	0.000		

DATA HIST. CODE- MVV

REFERENCE INFORMATION		
SREF	380.3004	sq. in
LREF	15.2150	in.
BREF	30.4400	in.
XMRP	33.4360	in.
YMRP	0.0000	in.
ZMRP	3.3380	in.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

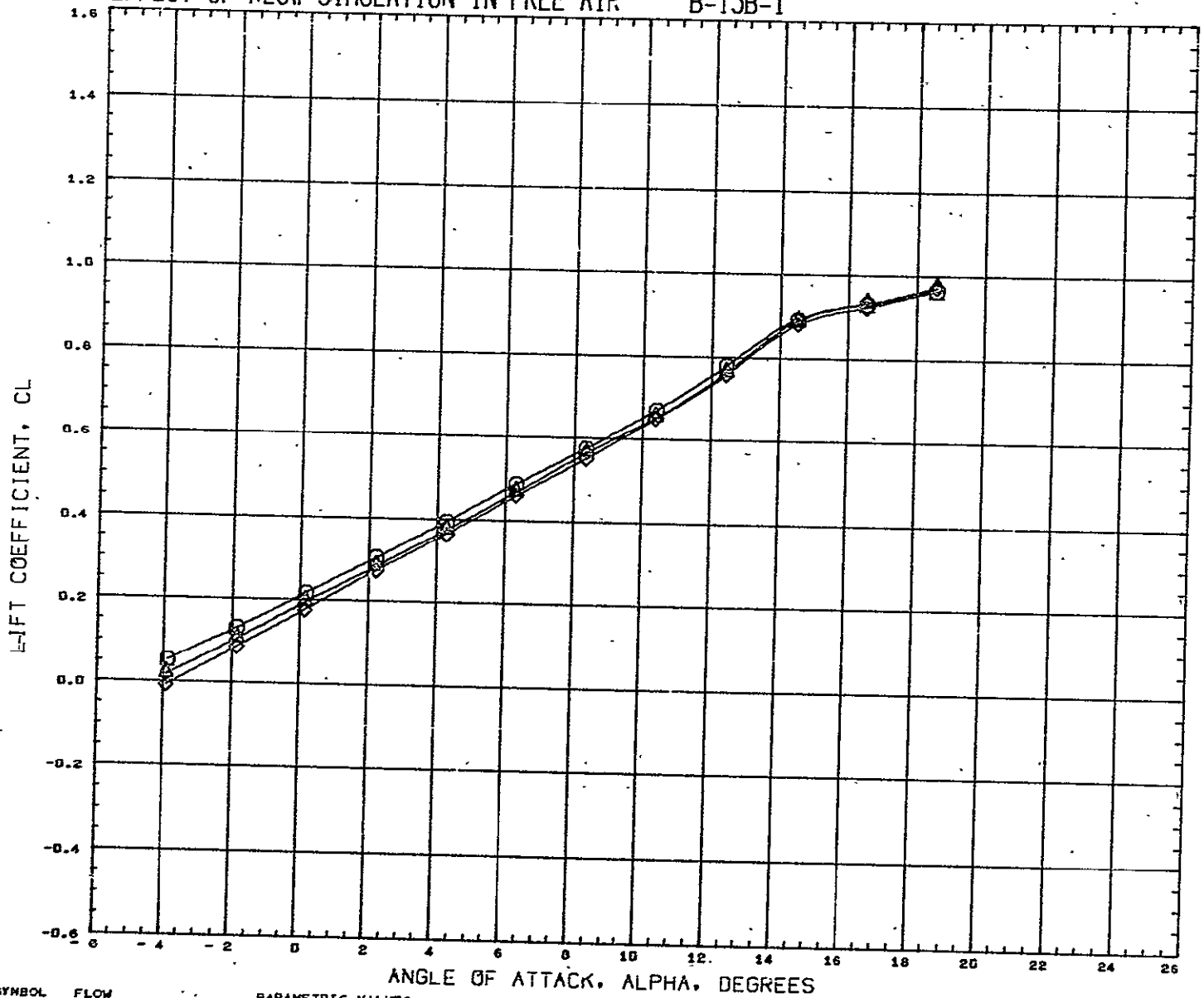


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	10.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.5380	IN.
SCALE	0.0175	

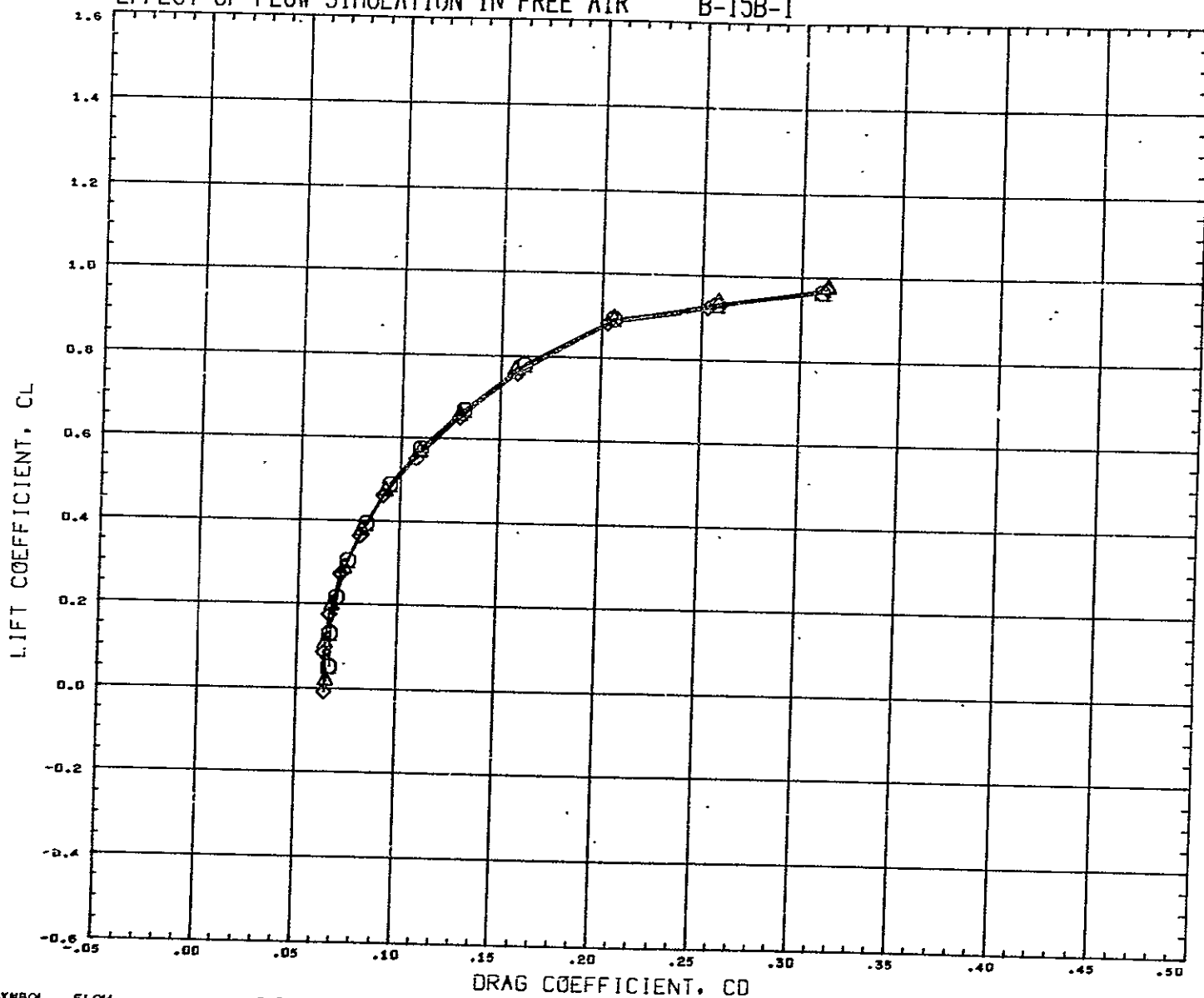
DATA HIST. CODE MVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



SYMBOL	FLOW	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.000	BETA	0.000	MACH	0.201	SREF	380.3004	SQ. IN
△	0.520	RUDDER	0.000	ELEVTR	10.000	LREF	15.2150	IN.
◇	0.620	AILRON	0.000	CANVTR	10.000	BREF	30.4400	IN.
		CANRON	0.000			XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

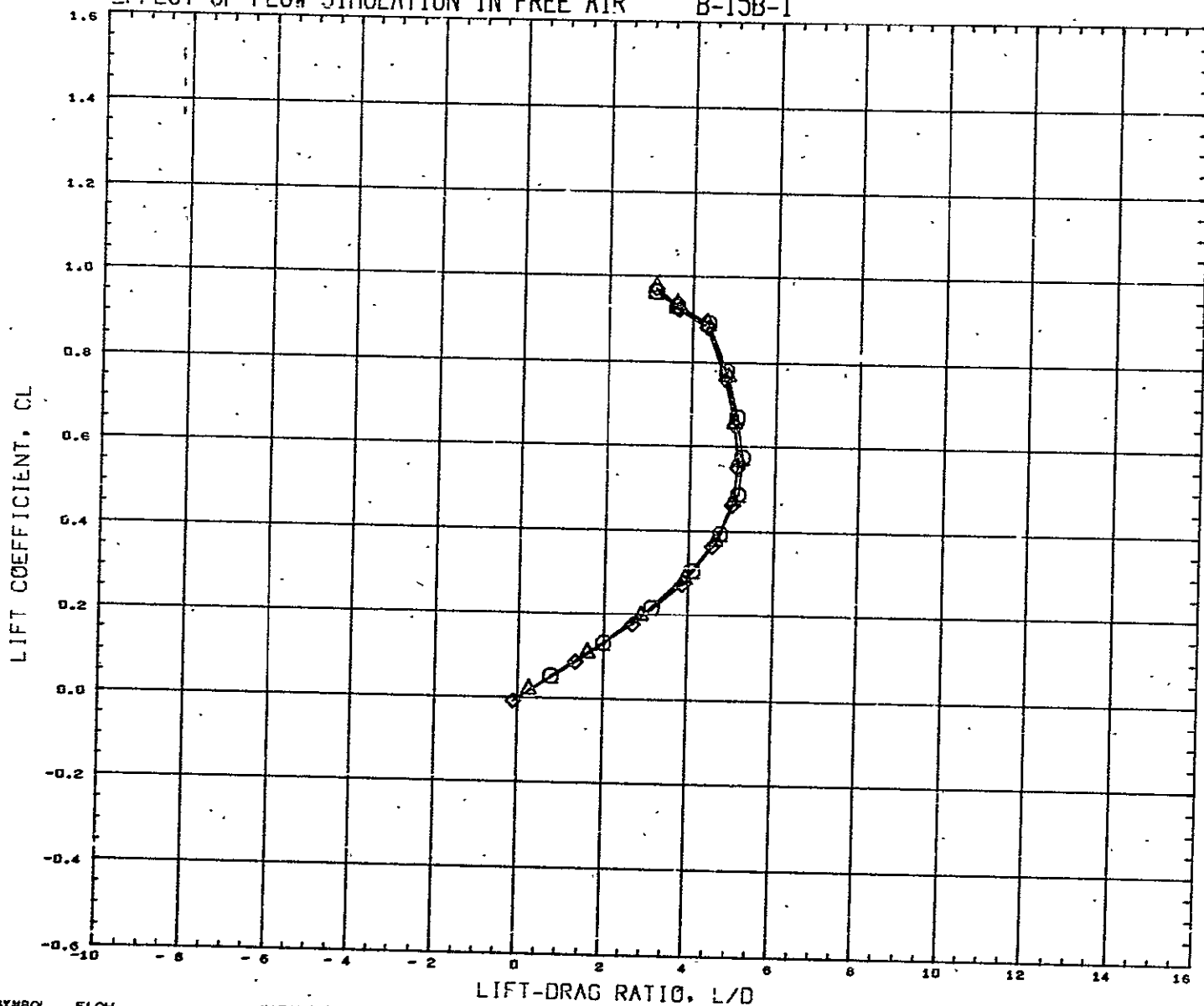
EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



SYMBOL	FLOW	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.000	BETA	0.000	MACH	0.201	SREF	380.3004	sq. IN
△	0.520	RUDDER	0.000	ELEVTR	10.000	LREF	15.2150	IN.
◇	0.620	AILRON	0.000	CANVTR	10.000	BREF	30.4400	IN.
		CANRON	0.000			XHRP	33.4360	IN.
						YHRP	0.0000	IN.
						ZHRP	3.9390	IN.
						SCALE	0.0175	

DATA HIST. CODE MVV*4

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

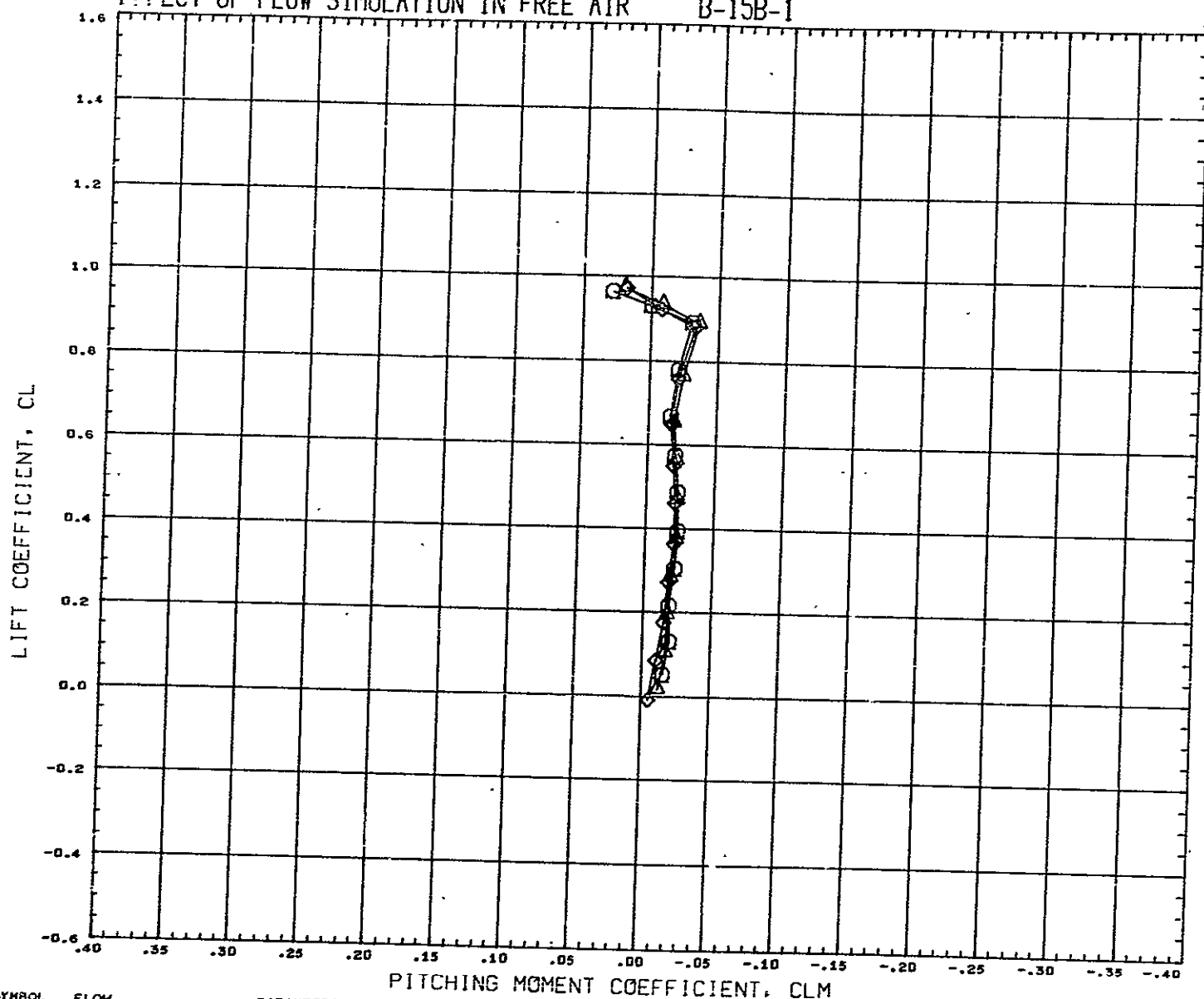


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	10.000
◇	0.620	AILRON	0.000	CANVTR	10.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV#A

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

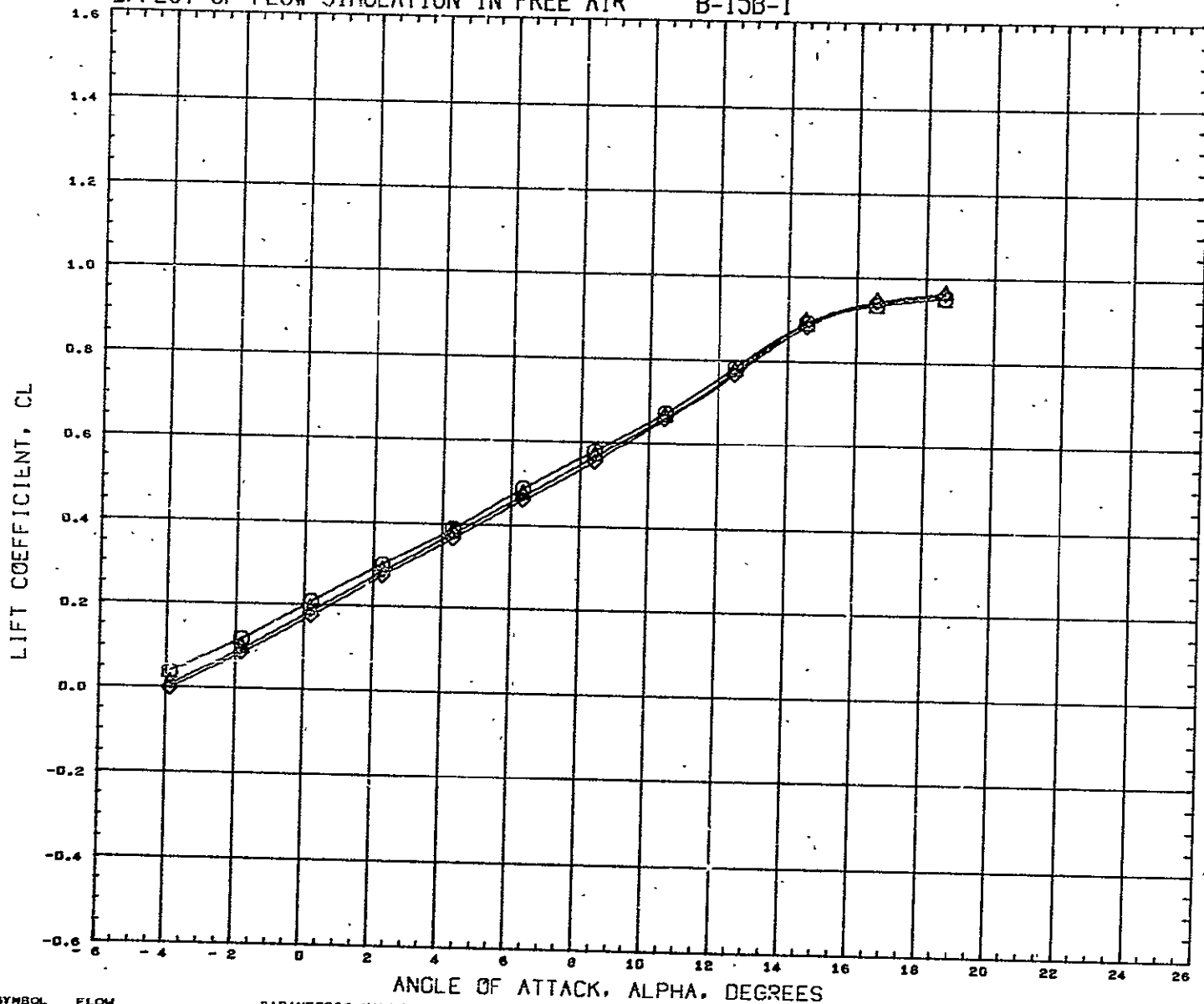


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	10.000
◇	0.620	AILRON	0.000	CANVTR	10.000
		CANRON	0.000		

DATA HIST CODE MVV#A

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

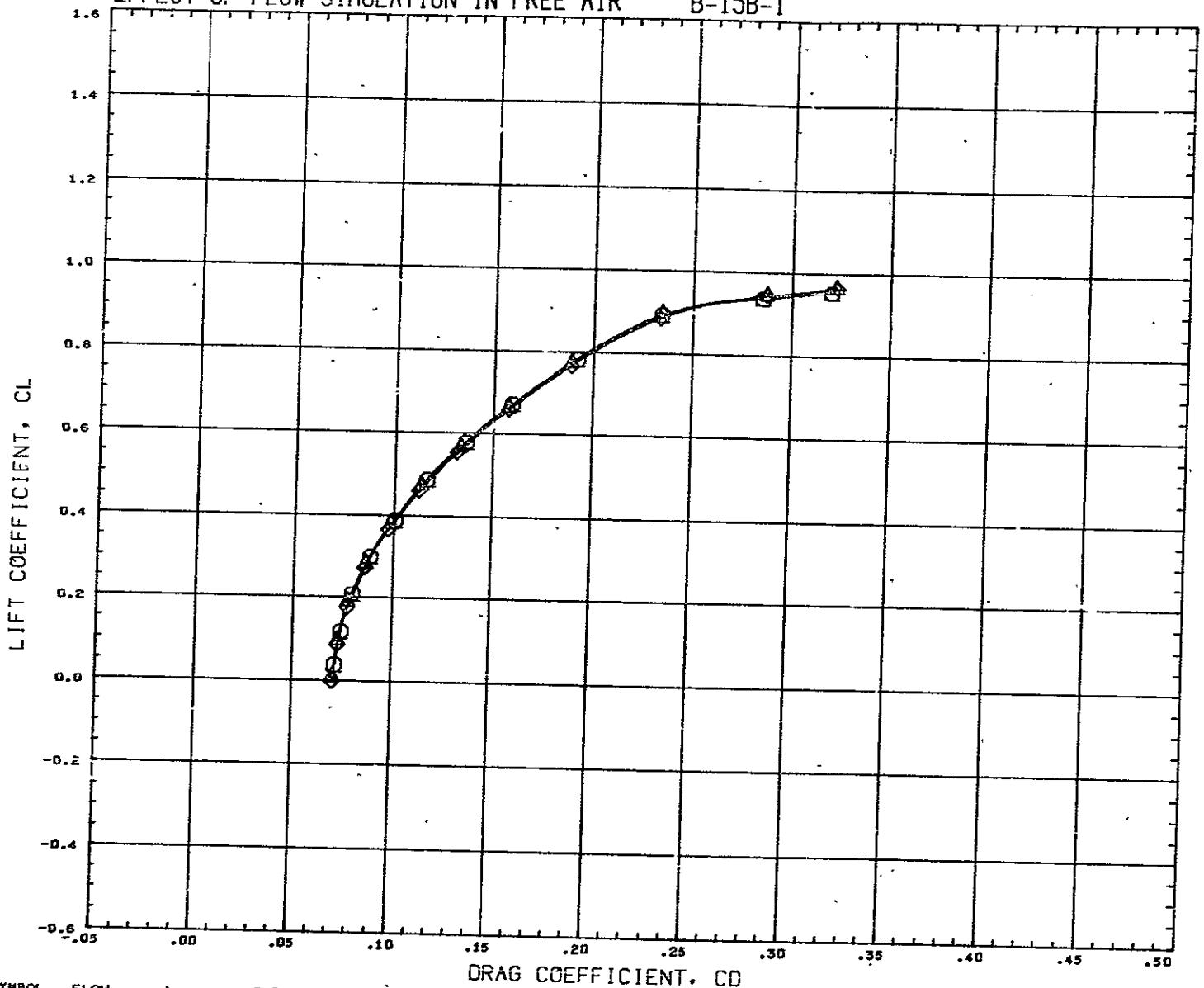
EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



SYMBOL	FLOW	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	0.000	MACH	0.201	SREF	380.3004	Sq. IN
○	0.000	RUDDER	0.000	ELEVTR	10.000	LREF	15.2150	IN.
△	0.520	AIRON	0.000	CANVTR	20.000	BREF	30.4400	IN.
◇	0.620	CANON	0.000			XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

DATA HIST. CODE HVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



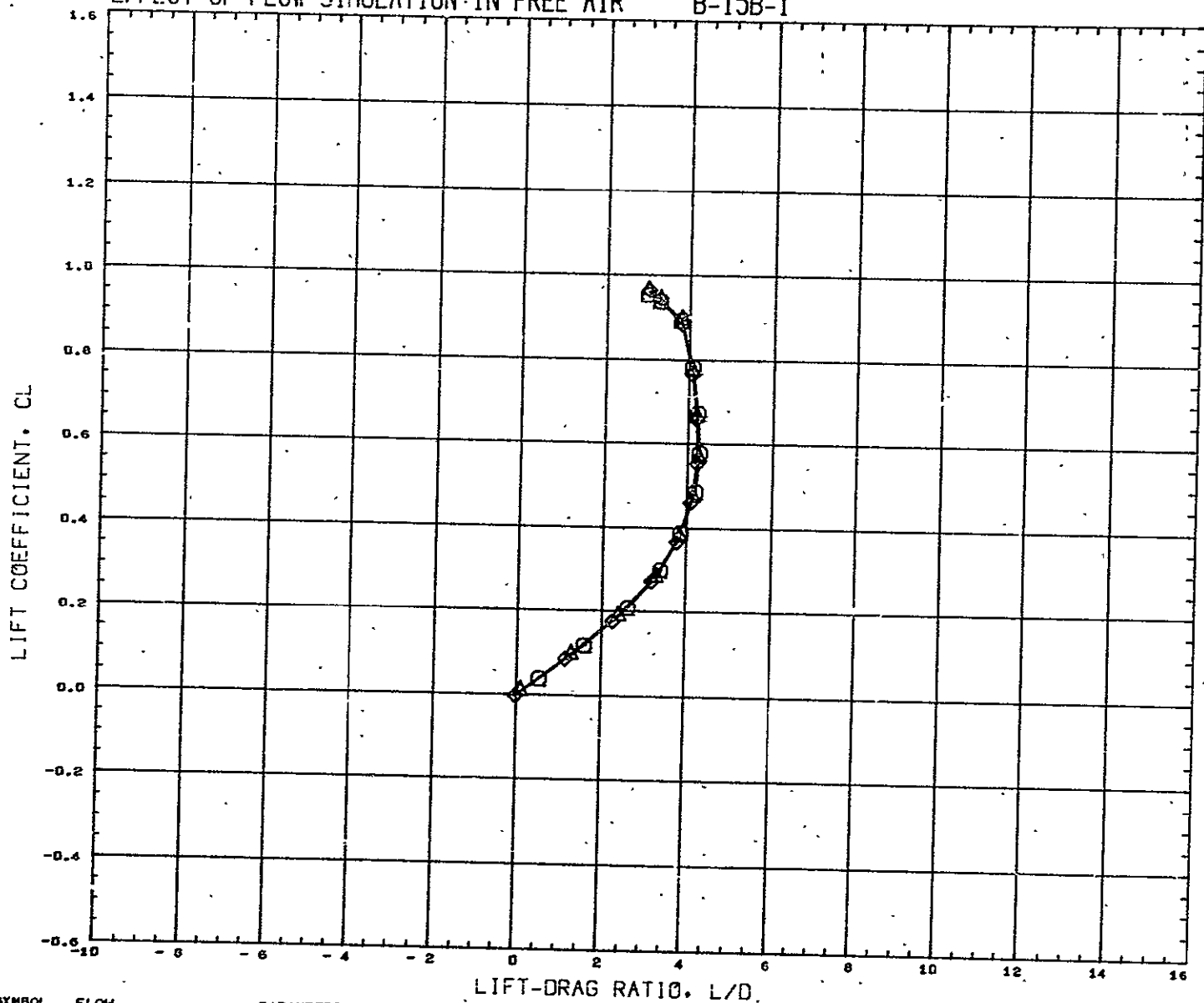
SYMBOL	FLOW	PARAMETRIC VALUES
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△	0.520	RUDDER 0.000 ELEVTR 10.000
◇	0.620	AILRON 0.000 CANVTR 20.000
		CANRON 0.000

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

GDLST 587-1 B21X1V7C4W16G3E35 DE = 10 DC = 20 (ACVF08) 24 JUL 71 PAGE 278

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



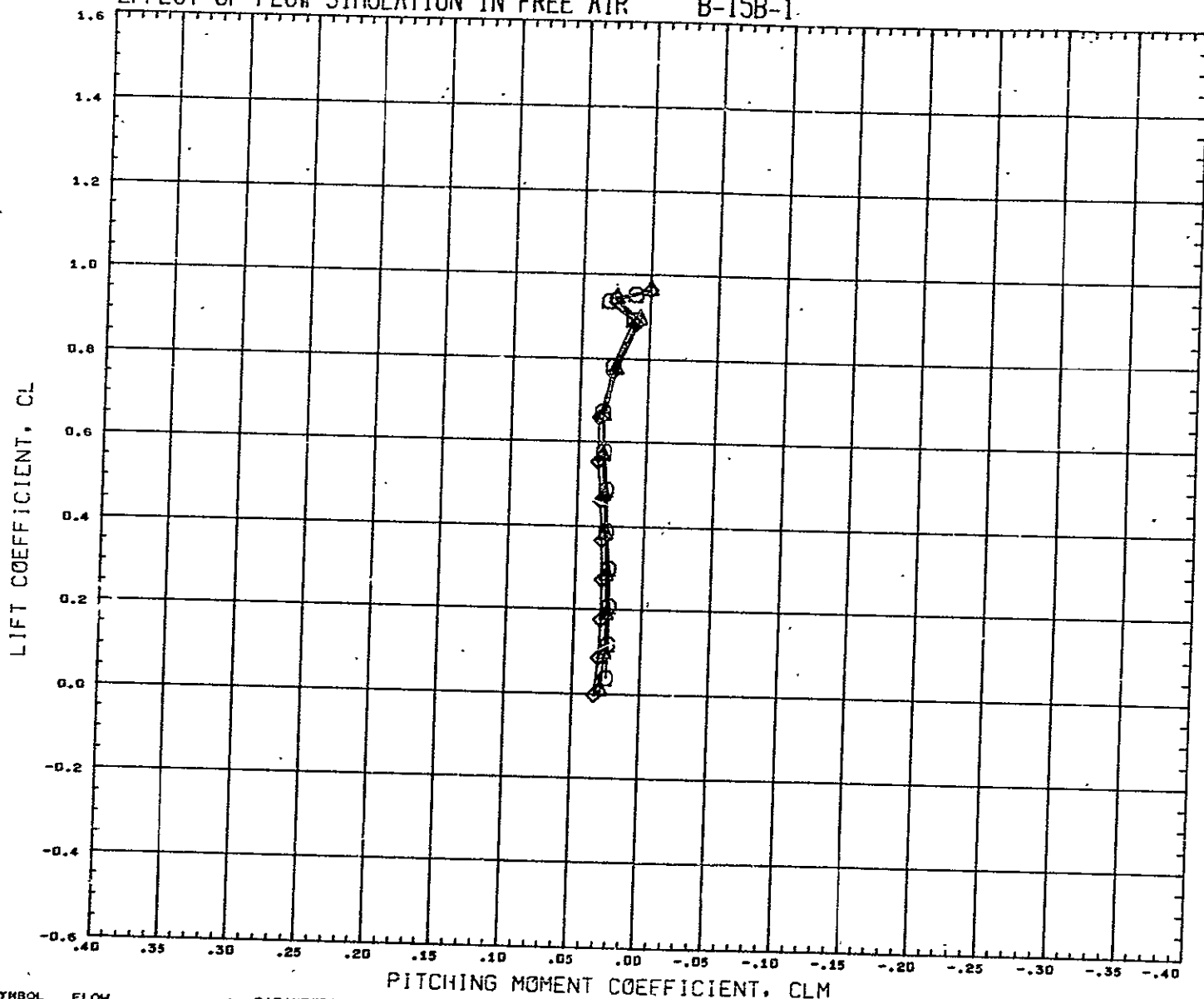
SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	10.000
◇	0.620	AILRON	0.000	CANVTR	20.000
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XNRP	32.4360	IN.
YNRP	0.0000	IN.
ZNRP	3.9380	IN.
SCALE	0.0175	

GD:ST 587-1 B21X1V7C4W16G3E35 DE = 10' DC = 20' (ACVF08) 24 JUL 71 P:3E 279

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



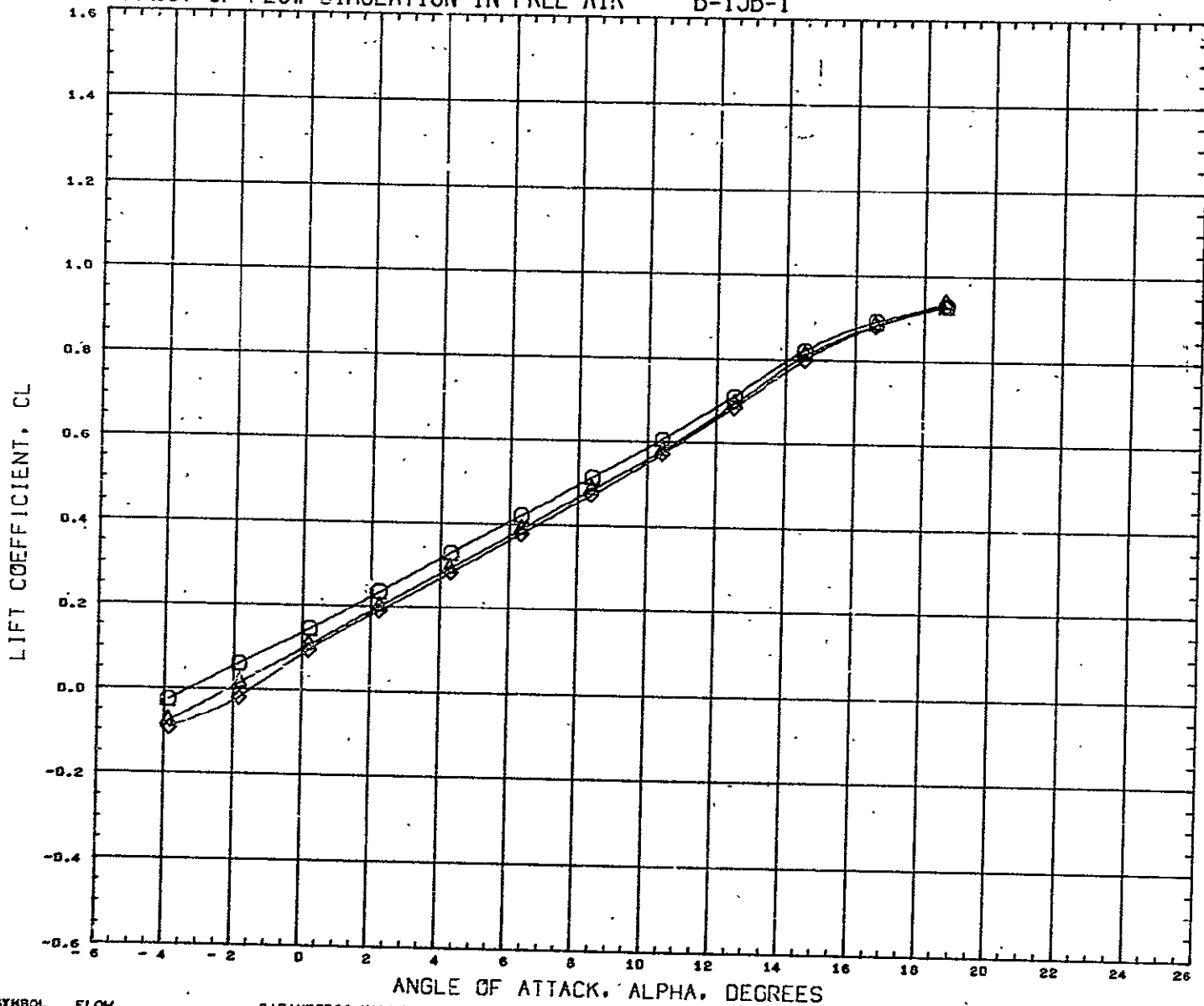
SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	10.000
◇	0.620	AILRON	0.000	CANVTR	20.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

GD-1587-1 B21X1V7C4W16G3E35 DE = 10 DC = 20 (ACVF08) 24 JUL 71 P. 280

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

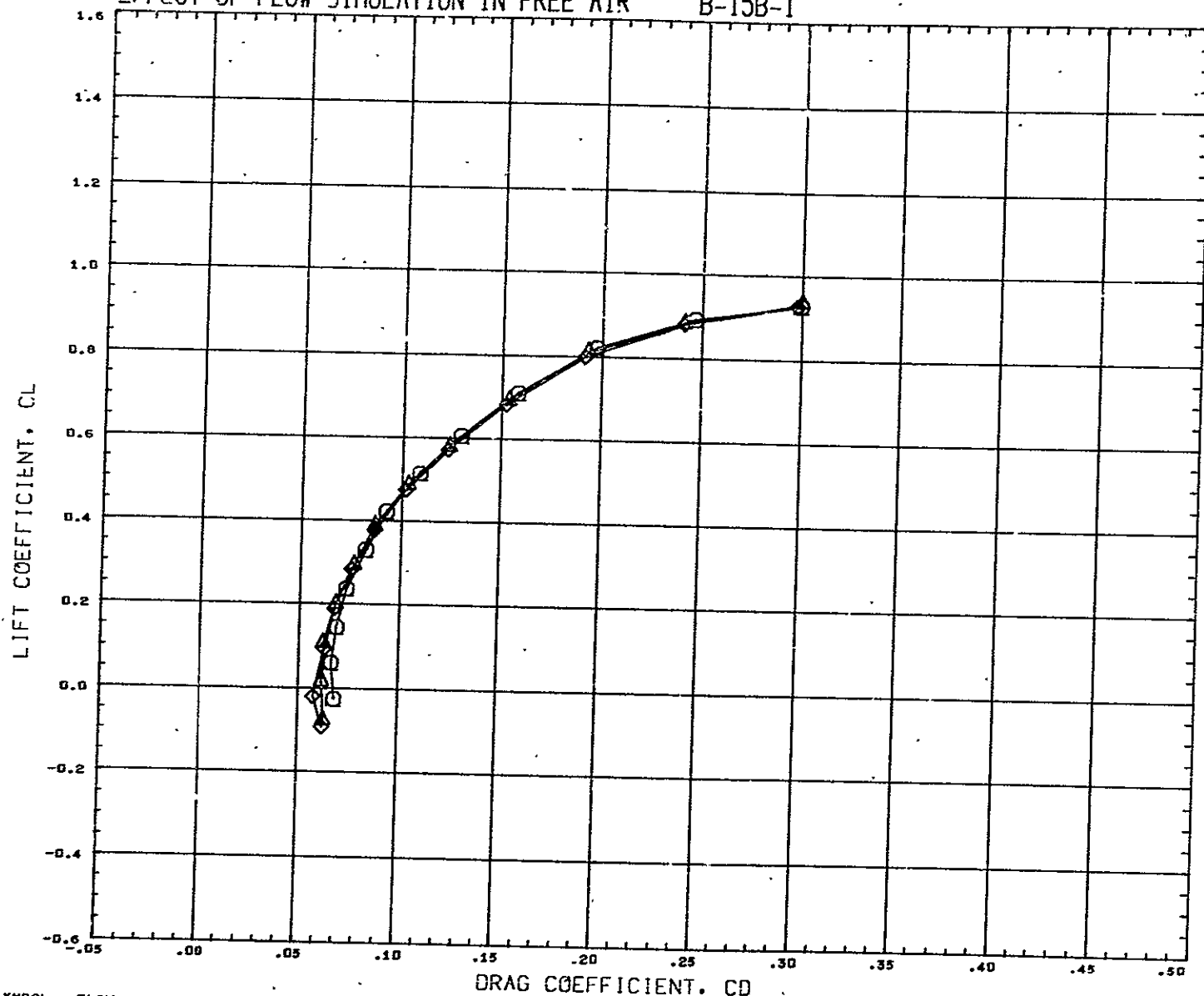


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	3.000
◇	0.620	AIRON	0.000	CANVTR	15.000
		CANON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	sq. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

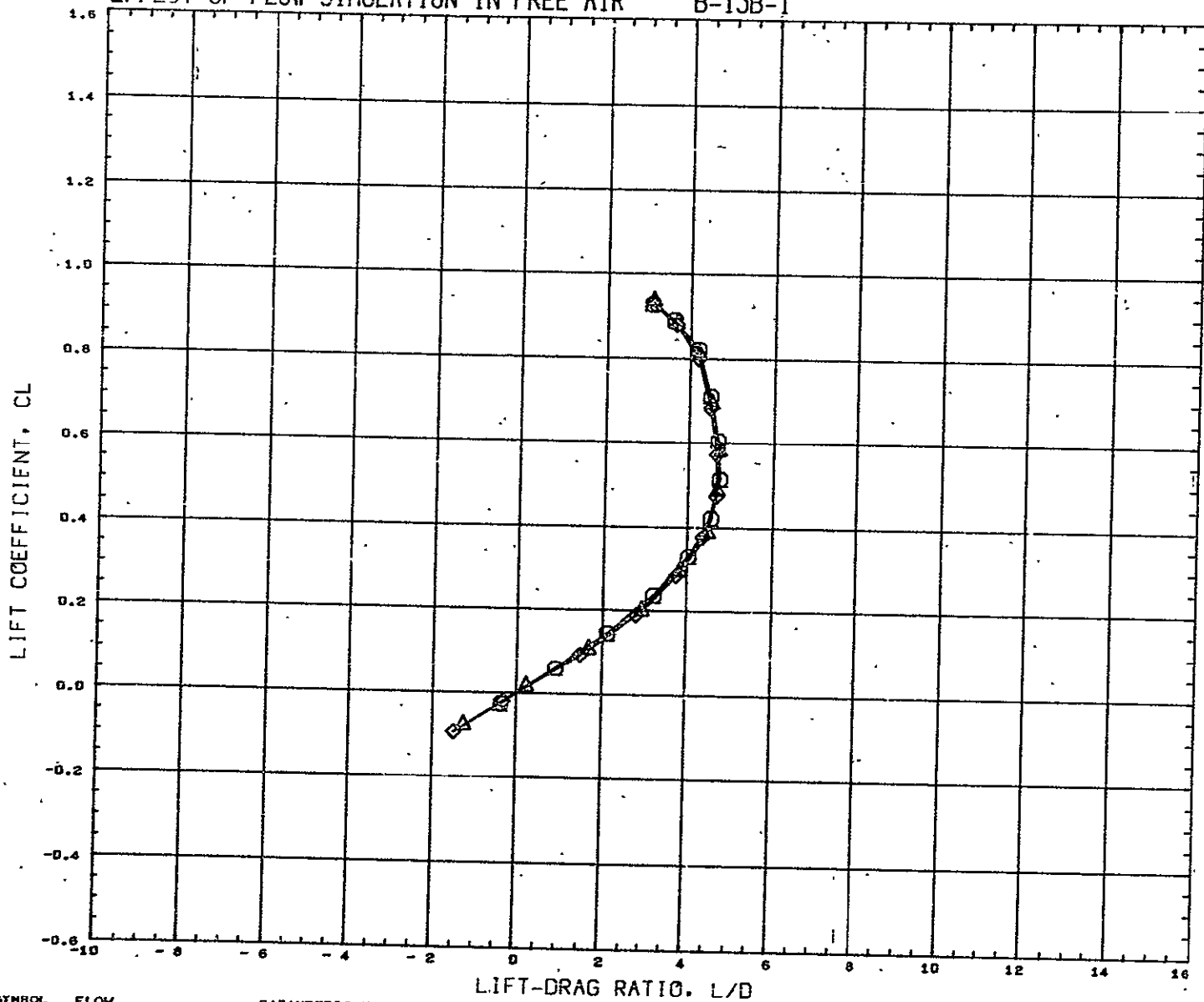


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	3.000
▽	0.620	AILRON	0.000	CANVTR	10.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

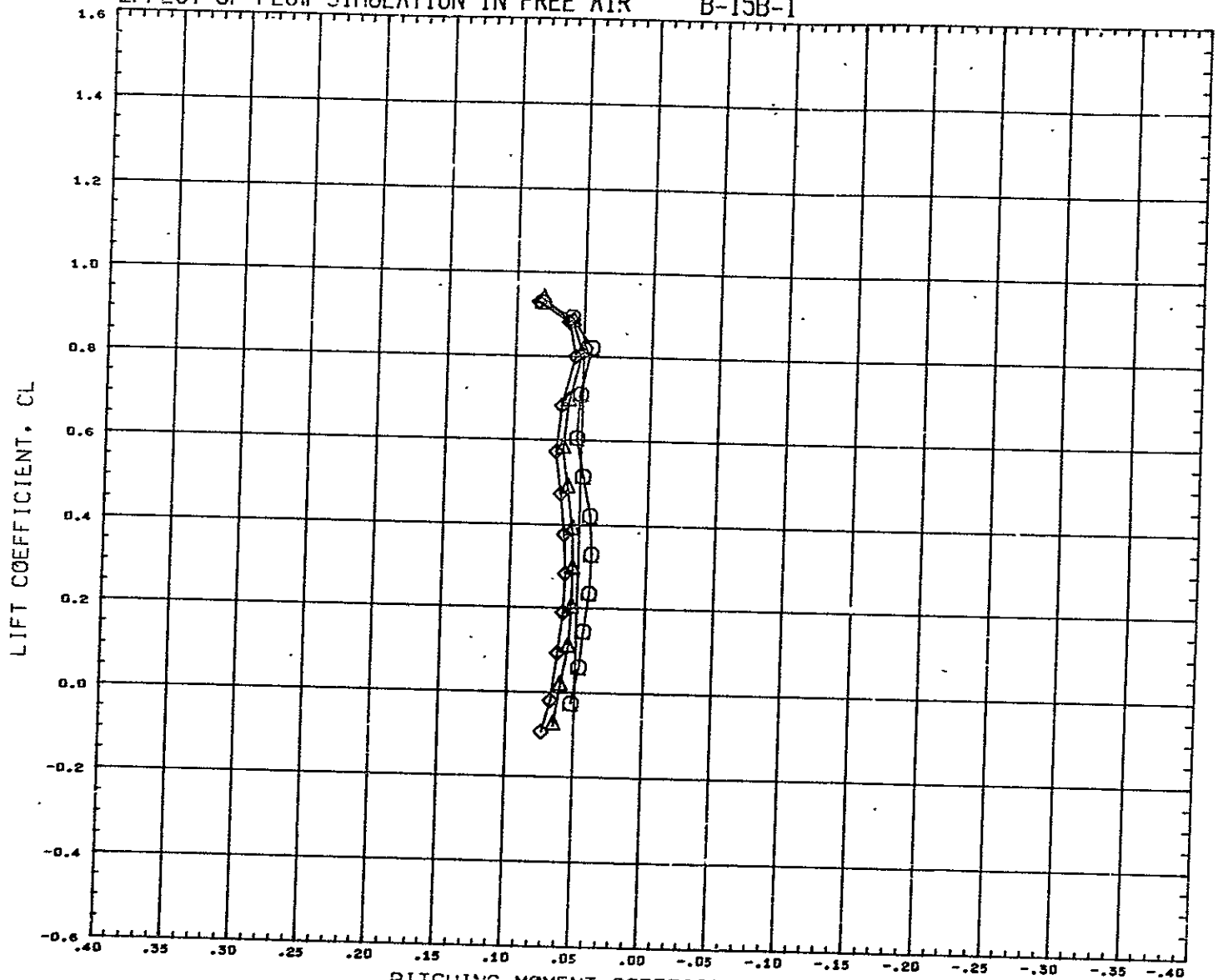


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	3.000
◇	0.620	AILERON	0.000	CANVTR	15.000
		CANCON	0.000		

DATA HIST. CODE HVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

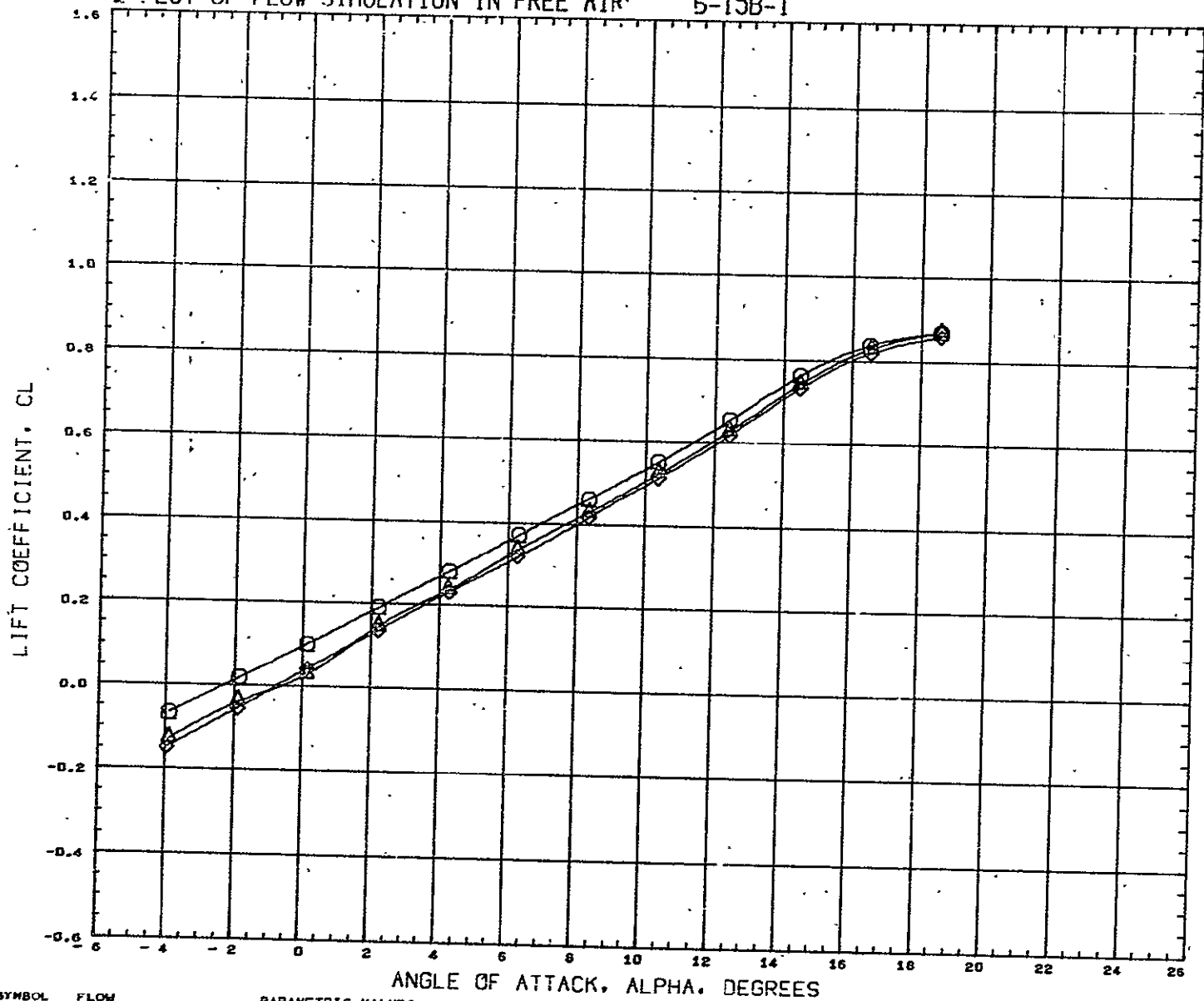


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	3.000
◇	0.620	AILRON	0.000	CANVTR	15.000
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XNRP	33.4360	IN.
YNRP	0.0000	IN.
ZNRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR 6-15B-1

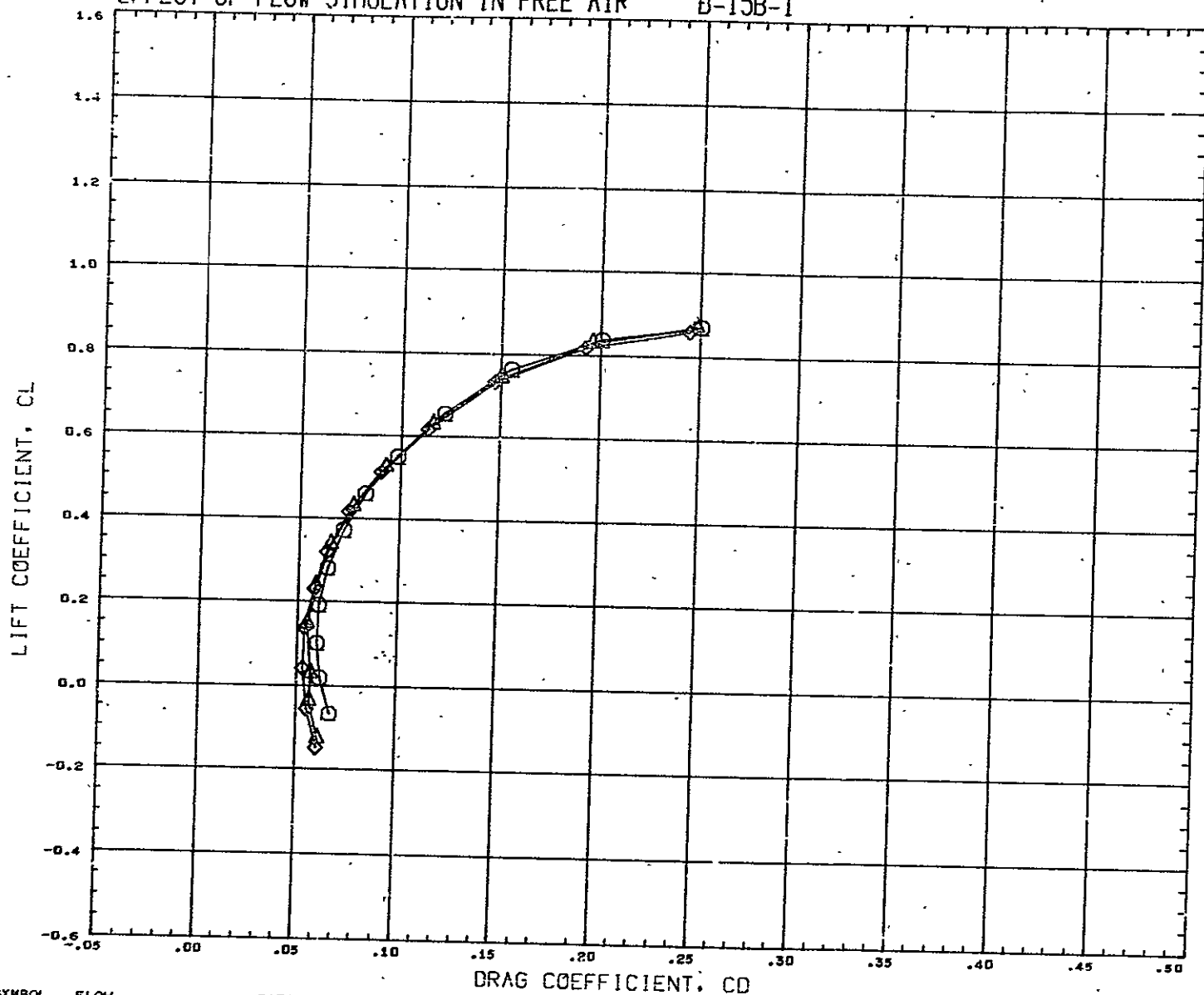


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	5.300
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMHP	33.4360	IN.
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ZMHP	3.9380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

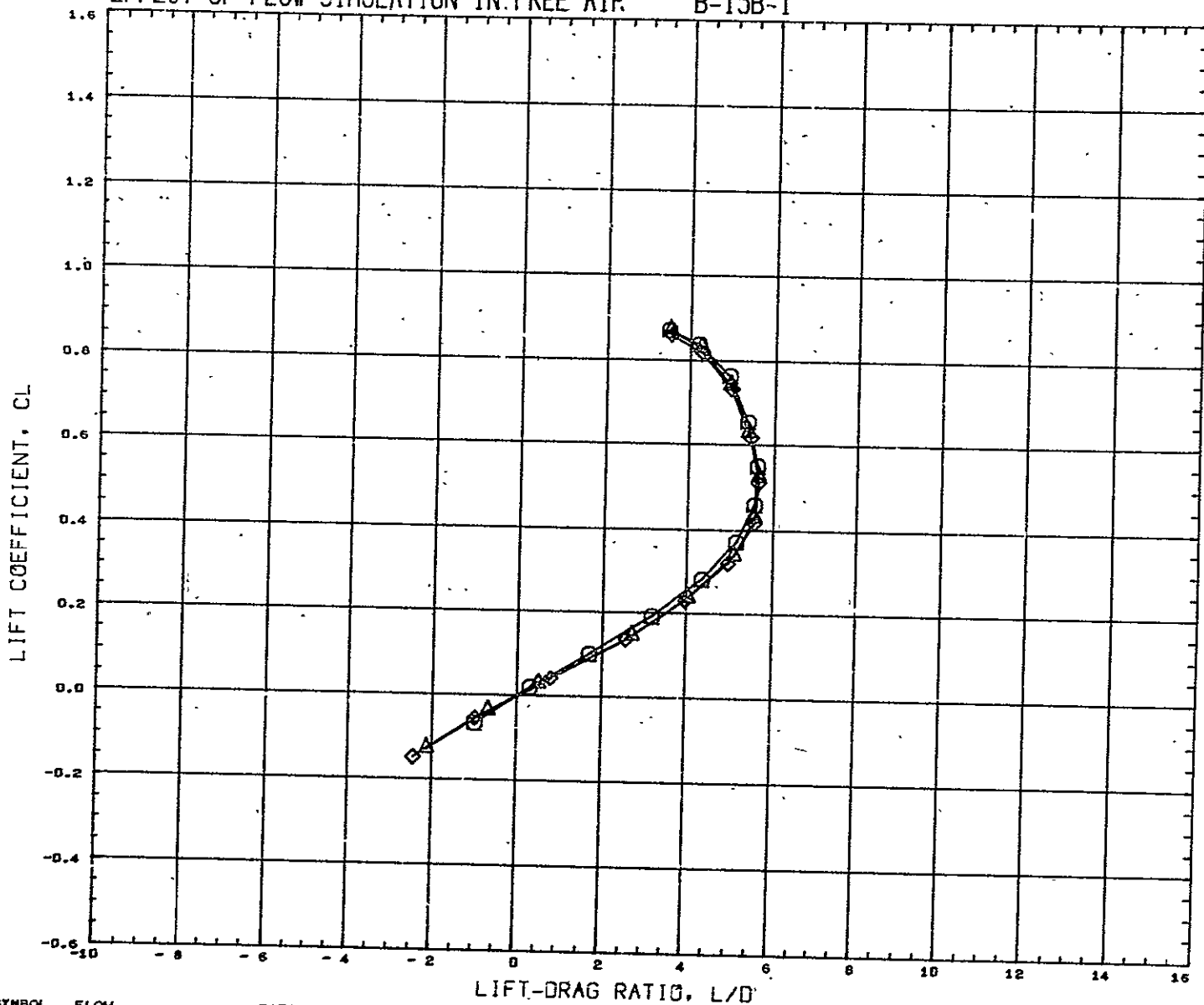


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	5.000
		CANRON	0.000		

REFERENCE INFORMATION		
SREF	380.3014	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1

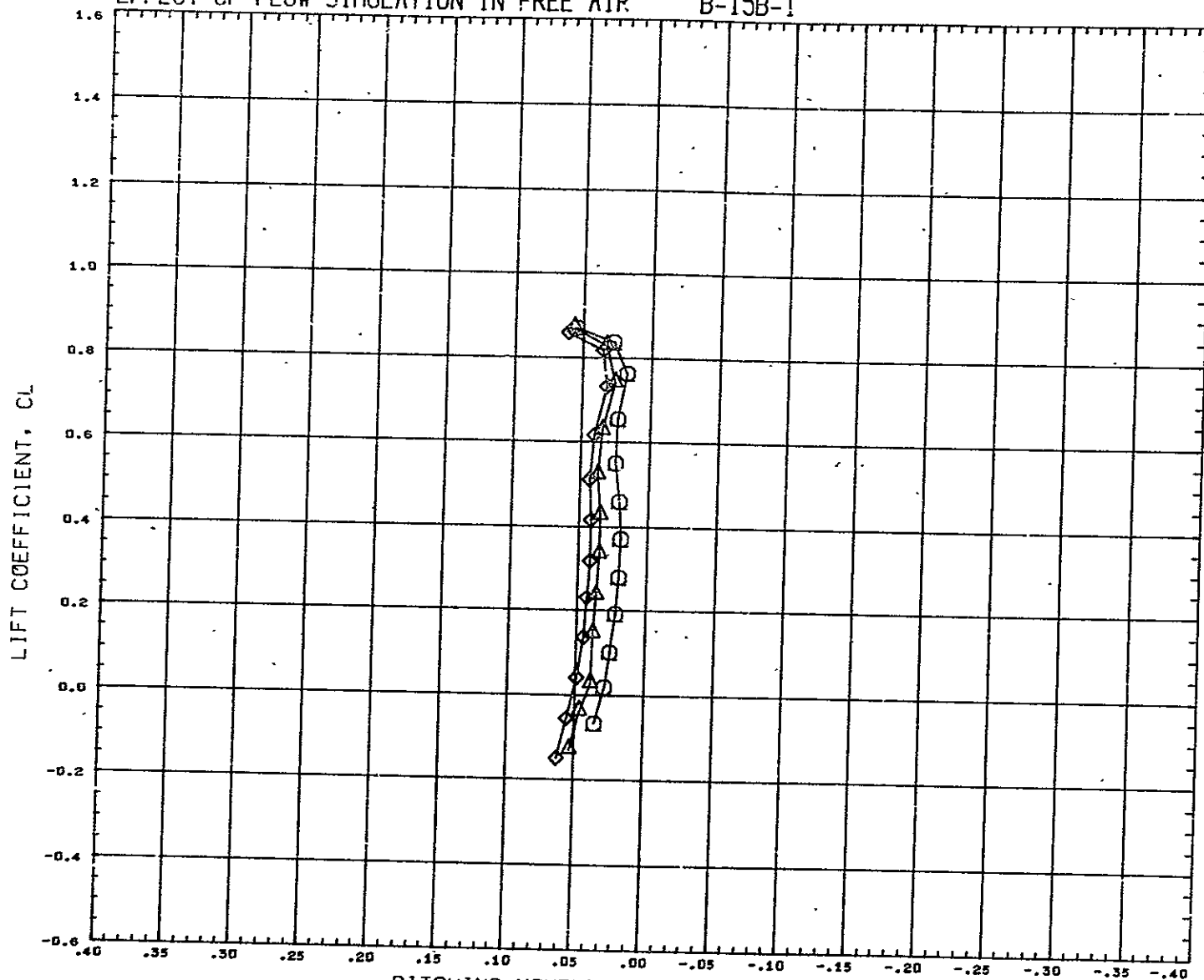


SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	5.000
		CANRON	0.000		

DATA HIST. CODE HVV

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.5380	IN.
SCALE	0.0175	

EFFECT OF FLOW SIMULATION IN FREE AIR B-15B-1



PITCHING MOMENT COEFFICIENT, C_{LM}

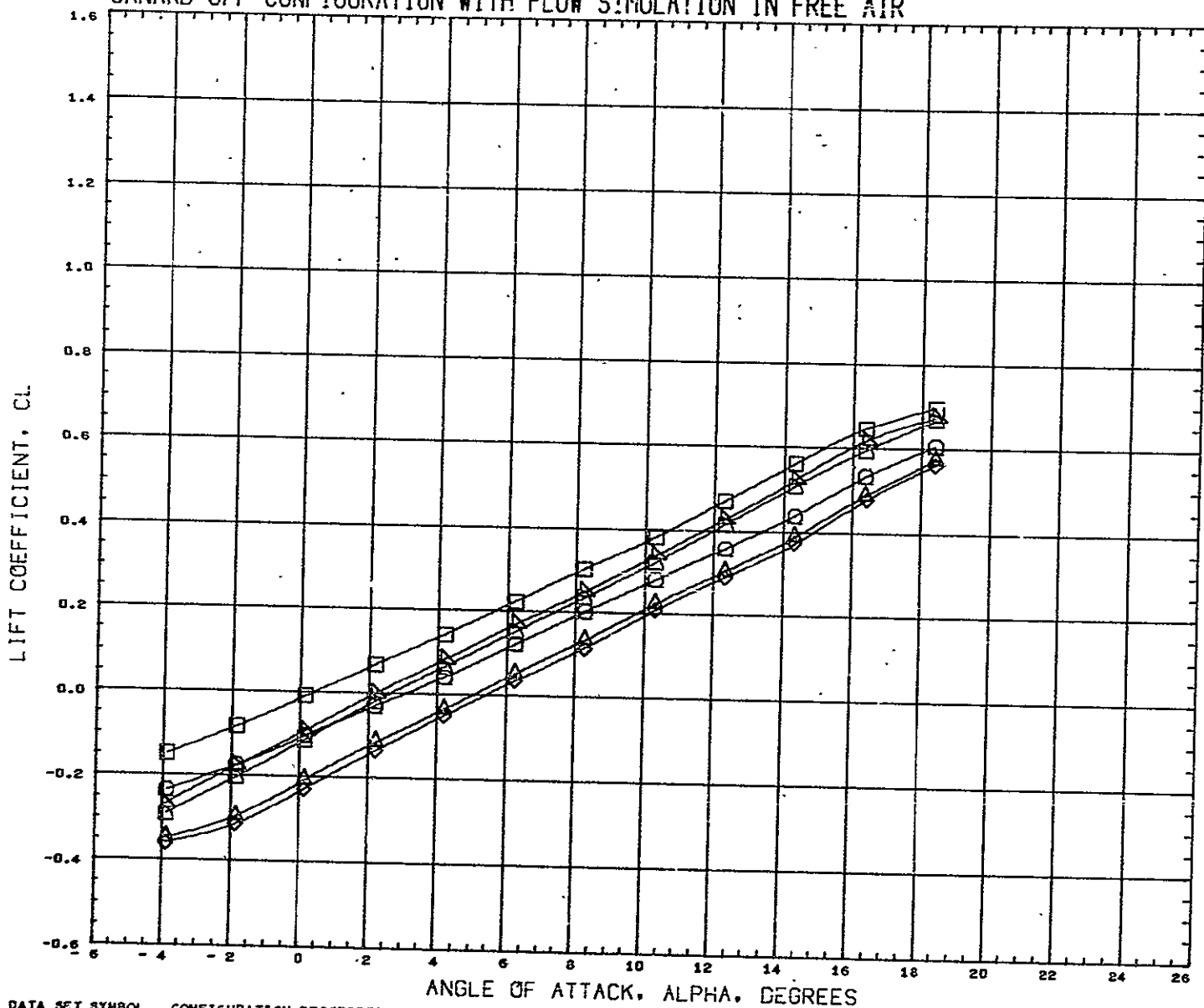
SYMBOL	FLOW	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	0.520	RUDDER	0.000	ELEVTR	0.000
◇	0.620	AILRON	0.000	CANVTR	5.000
		CANRON	0.000		

DATA HIST. CODE MVV

REFERENCE INFORMATION		
SREF	380.3004	SG. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 5 (ACVF10) 24 III 711 DATE 000

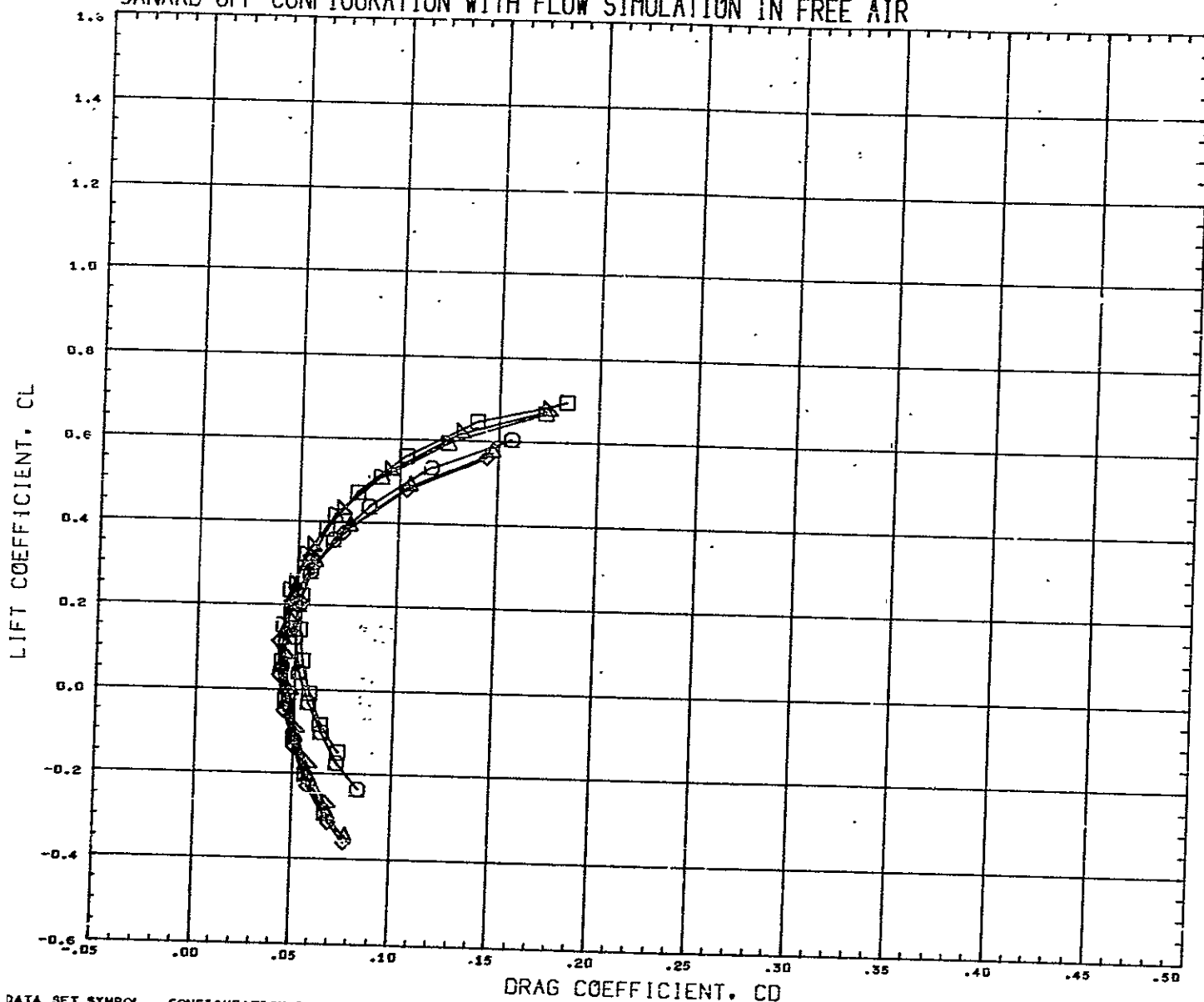
CANARD OFF CONFIGURATION WITH FLOW SIMULATION IN FREE AIR



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	AILRON	REFERENCE INFORMATION
(ECVFD1)	GDLST 587-1 B21X1V7W16G3E35 DE = -20	0.000	0.000	-20.000	0.000	SREF 380.3004 SQ. IN
(FCVFD1)	GDLST 587-1 B21X1V7W16G3E35 DE = -20	0.000	0.520	-20.000	0.000	LREF 15.2150 IN.
(ECVFD2)	GDLST 587-1 B21X1V7W16G3E35 DE = -10	0.000	0.620	-20.000	0.000	BREF 30.4400 IN.
(FCVFD2)	GDLST 587-1 B21X1V7W16G3E35 DE = -10	0.000	0.000	-10.000	0.000	XMRP 33.4360 IN.
(GCVFD2)	GDLST 587-1 B21X1V7W16G3E35 DE = -10	0.000	0.520	-10.000	0.000	YMRP 0.0000 IN.
		0.000	0.620	-10.000	0.000	ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

CANARD OFF CONFIGURATION WITH FLOW SIMULATION IN FREE AIR



DATA SET SYMBOL CONFIGURATION DESCRIPTION

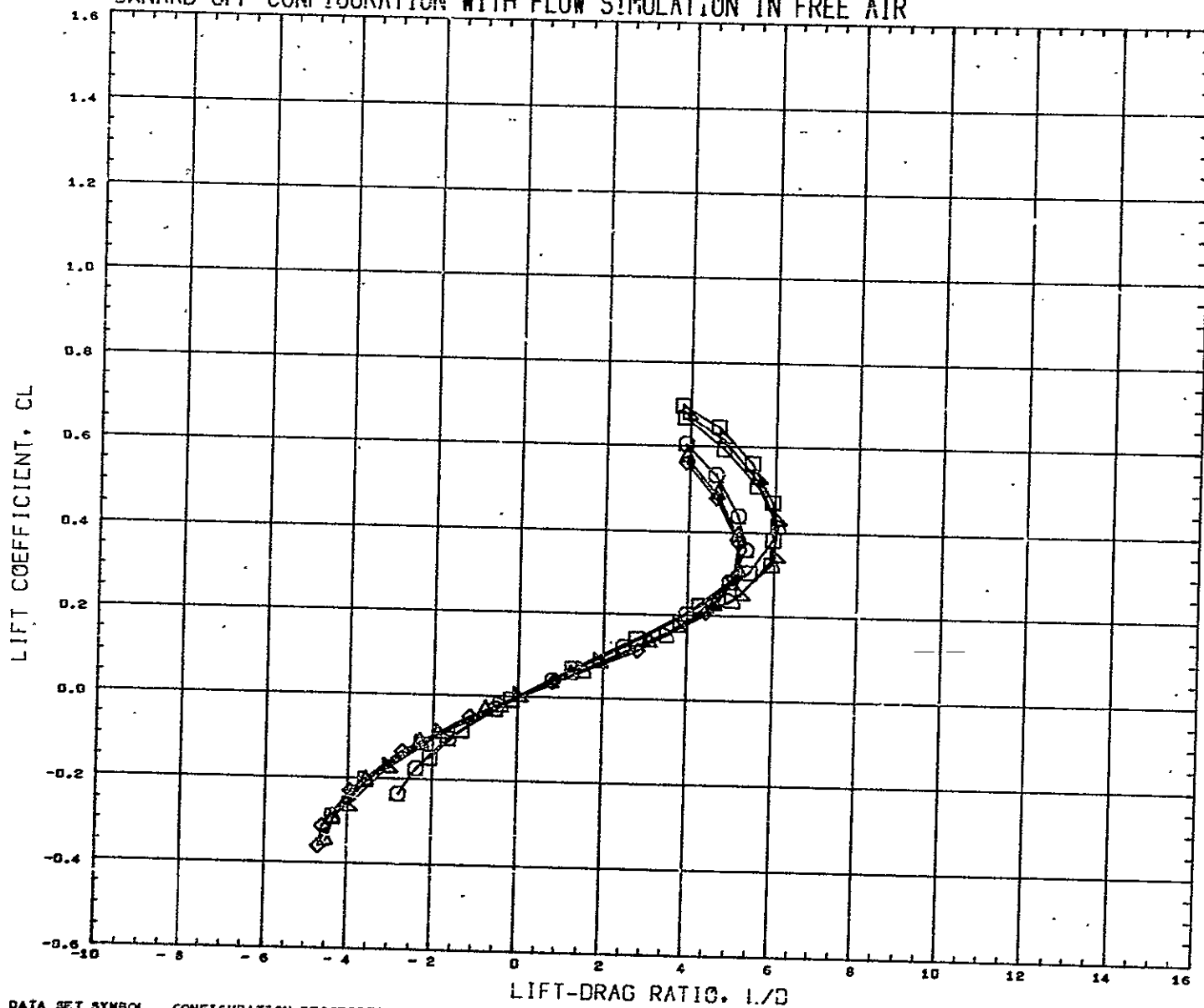
(ECVFO1)	GDLST 587-1 B21X1V7W16G3E35	DE = -20
(FCVFO1)	GDLST 587-1 B21X1V7W16G3E35	DE = -20
(GCVFO1)	GDLST 587-1 B21X1V7W16G3E35	DE = -20
(ECVFO2)	GDLST 587-1 B21X1V7W16G3E35	DE = -10
(FCVFO2)	GDLST 587-1 B21X1V7W16G3E35	DE = -10
(GCVFO2)	GDLST 587-1 B21X1V7W16G3E35	DE = -10

KACH 0.231

DRAG COEFFICIENT, CD

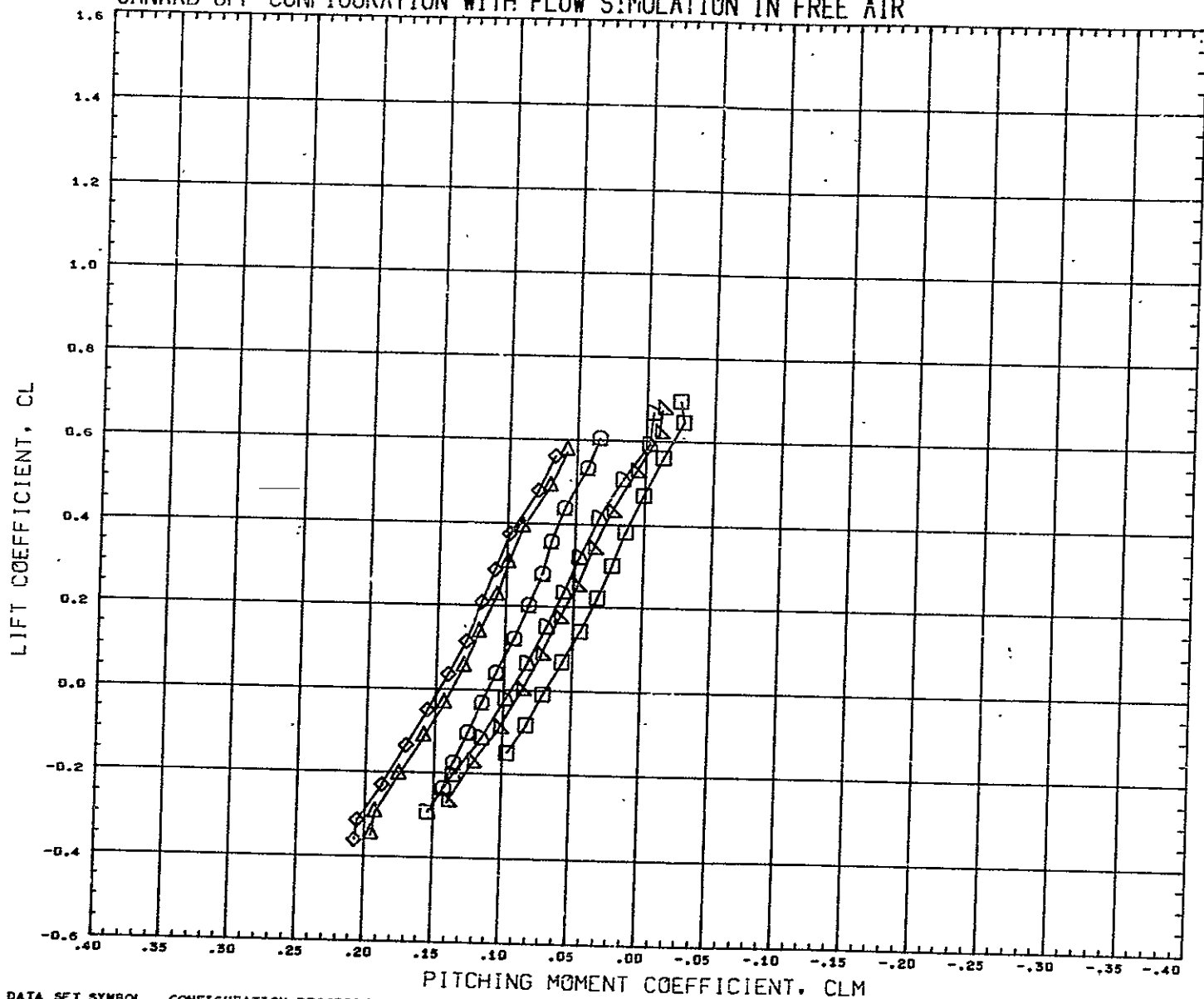
BETA	FLOW	ELEVTR	AILRON	REFERENCE INFORMATION
0.000	0.000	-20.000	0.000	SREF 380.3004 SQ. IN
0.000	0.520	-20.000	0.000	LREF 15.2150 IN.
0.000	0.620	-20.000	0.000	BREF 30.4400 IN.
0.000	0.300	-10.000	0.000	XMRF 33.4360 IN.
0.000	0.520	-10.000	0.000	YMRF 0.0000 IN.
0.000	0.620	-10.000	0.000	ZMRF 3.9360 IN.
				MLE 0.0175

CANARD OFF CONFIGURATION WITH FLOW SIMULATION IN FREE AIR



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLOW	ELEVTR	AILRON	REFERENCE INFORMATION
(ECVFD1)	GDLST 587-1 B21X1V7W16G3E35 DE = -20	0.000	0.000	-20.000	0.000	SREF 380.3004 SQ. IN
(FCVFD1)	GDLST 587-1 B21X1V7W16G3E35 DE = -20	0.000	0.520	-20.000	0.000	LREF 15.2150 IN.
(GCVFD1)	GDLST 587-1 B21X1V7W16G3E35 DE = -20	0.000	0.620	-20.000	0.000	BREF 30.4400 IN.
(ECVFD2)	GDLST 587-1 B21X1V7W16G3E35 DE = -10	0.000	0.000	-10.000	0.000	XMRP 33.4360 IN.
(FCVFD2)	GDLST 587-1 B21X1V7W16G3E35 DE = -10	0.000	0.520	-10.000	0.000	YMRP 0.0000 IN.
(GCVFD2)	GDLST 587-1 B21X1V7W16G3E35 DE = -10	0.000	0.620	-10.000	0.000	ZMRP 3.9380 IN.
	MACH 0.205					SCALE 0.0175

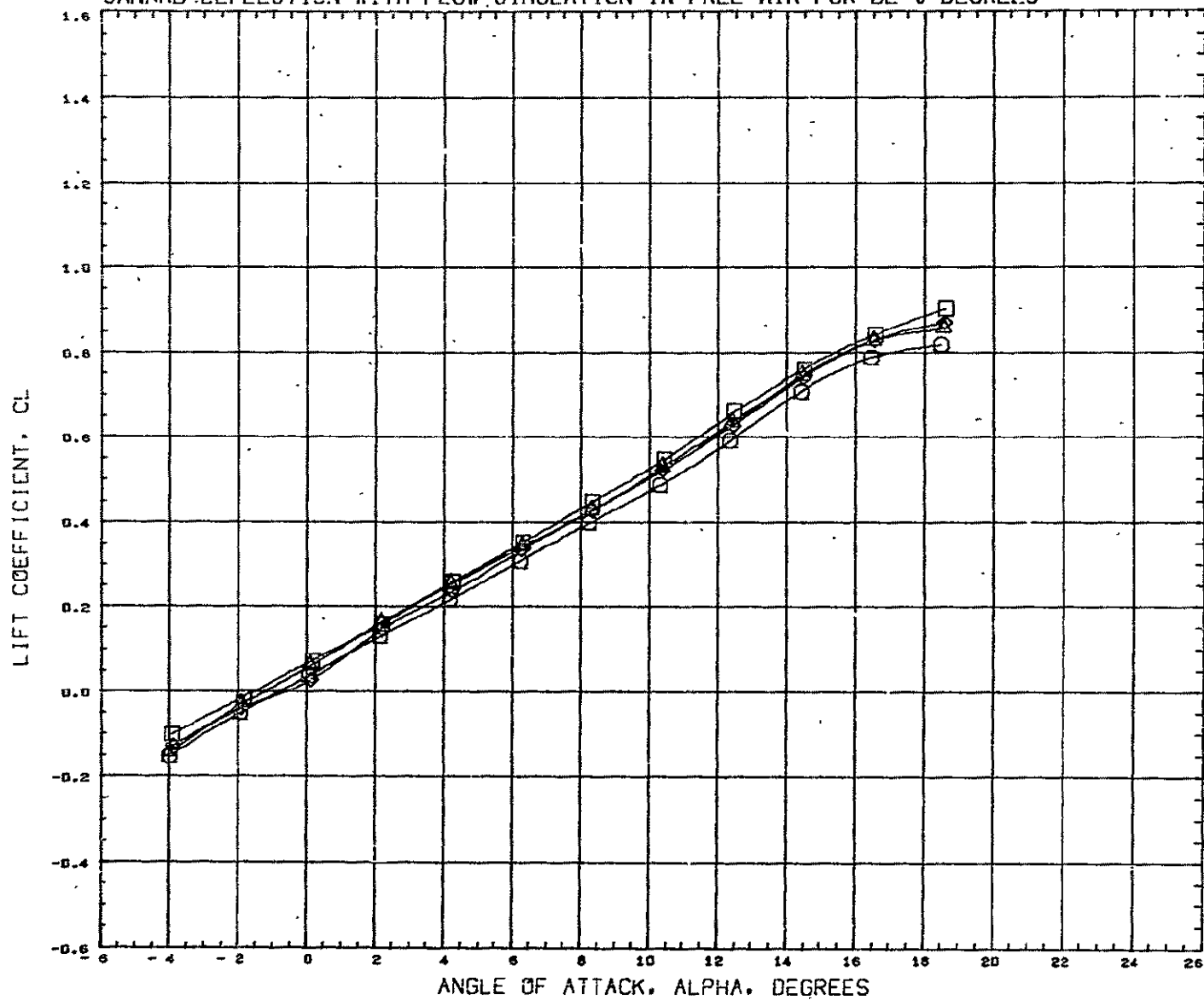
CANARD OFF CONFIGURATION WITH FLOW SIMULATION IN FREE AIR



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	BETA	FLOW	ELEVTR	AILRON	REFERENCE INFORMATION
(ECVFO1)	GDLST 587-1 B21X1V7W16G3E35	DE = -20	0.000	0.000	-20.000	0.000	SREF 380.3004 SQ. IN
(FCVFO1)	GDLST 587-1 B21X1V7W16G3E35	DE = -20	0.000	0.520	-20.000	0.000	LREF 15.2150 IN.
(CCVFO1)	GDLST 587-1 B21X1V7W16G3E35	DE = -20	0.000	0.620	-20.000	0.000	BREF 30.4400 IN.
(ECVFO2)	GDLST 587-1 B21X1V7W16G3E35	DE = -10	0.000	0.000	-10.000	0.000	XMRP 33.4360 IN.
(FCVFO2)	GDLST 587-1 B21X1V7W16G3E35	DE = -10	0.000	0.520	-10.000	0.000	YMRP 0.0000 IN.
(GCVFO2)	GDLST 587-1 B21X1V7W16G3E35	DE = -10	0.200	0.620	-10.000	0.000	ZMRP 3.9380 IN.
							SCALE 0.0175

MACH 0.201

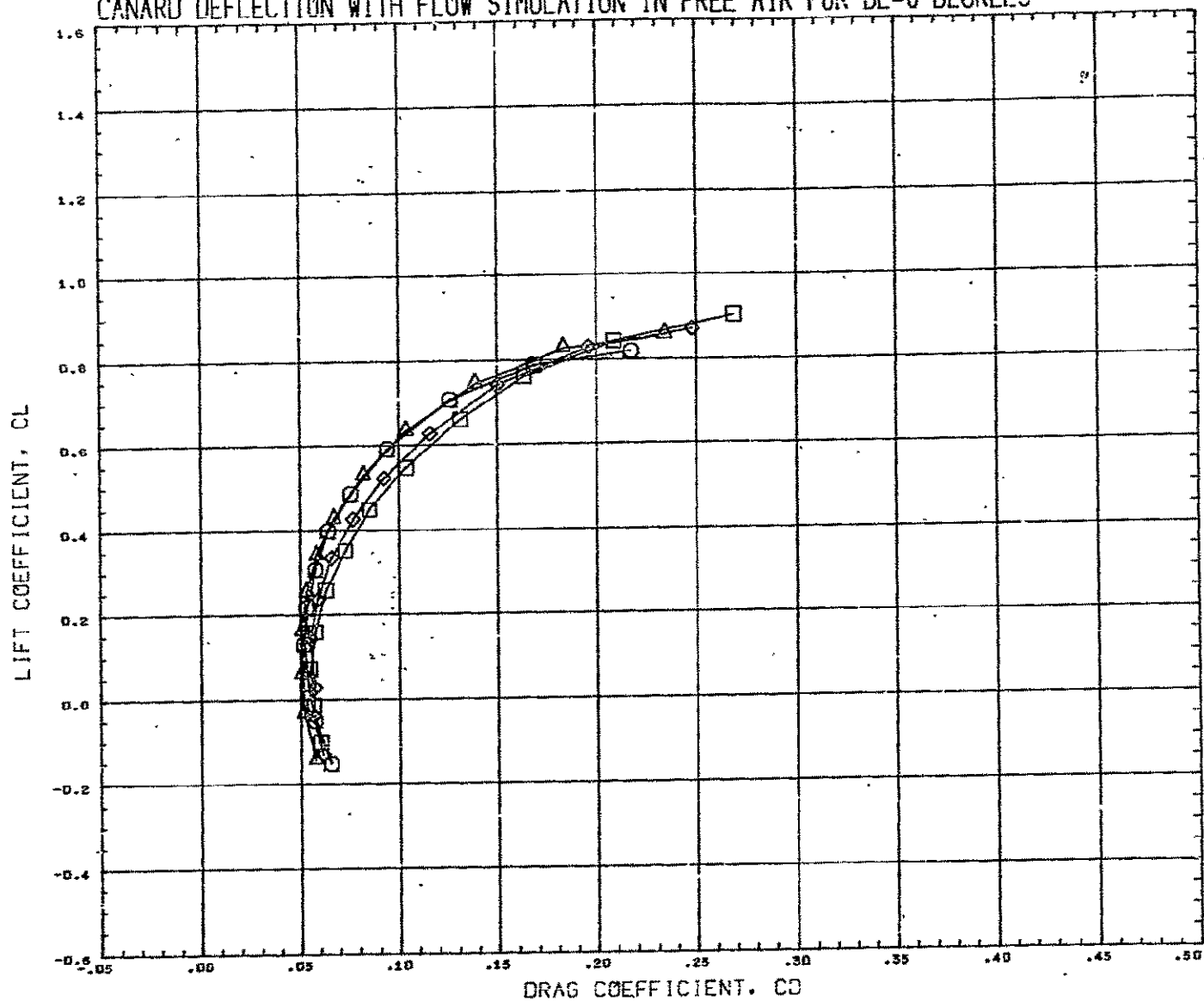
CANARD DEFLECTION WITH FLOW SIMULATION IN FREE AIR FOR DE=0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVFB4)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = -10	0.000	-10.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVFB5)	GDLST 587-1 B21X1V7C4W16G3E35 UE = 0 DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(CCVFB10)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 5	0.000	5.000	0.000	0.000	BREF 30.4400 IN.
(CCVFB6)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 10	0.000	10.000	0.000	0.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

FLOW 0.520

CANARD DEFLECTION WITH FLOW SIMULATION IN FREE AIR FOR DE=0 DEGREES

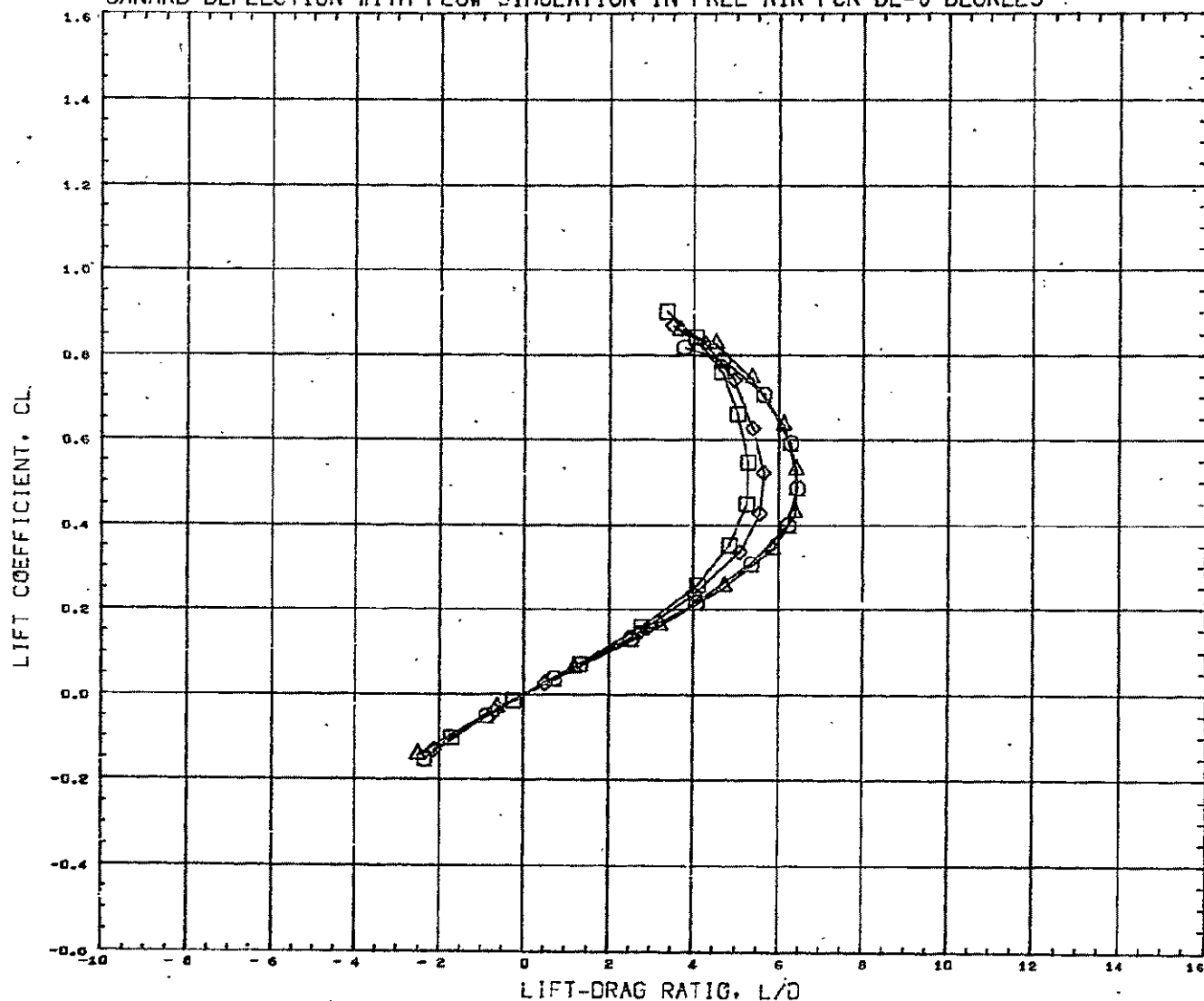


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVFD4)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = -10	0.000	-10.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVFD5)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(CCVFD6)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 5	0.000	5.000	0.000	0.000	BREF 30.4400 IN.
(CCVFD7)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 10	0.000	10.000	0.000	0.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

FLOW 0.520

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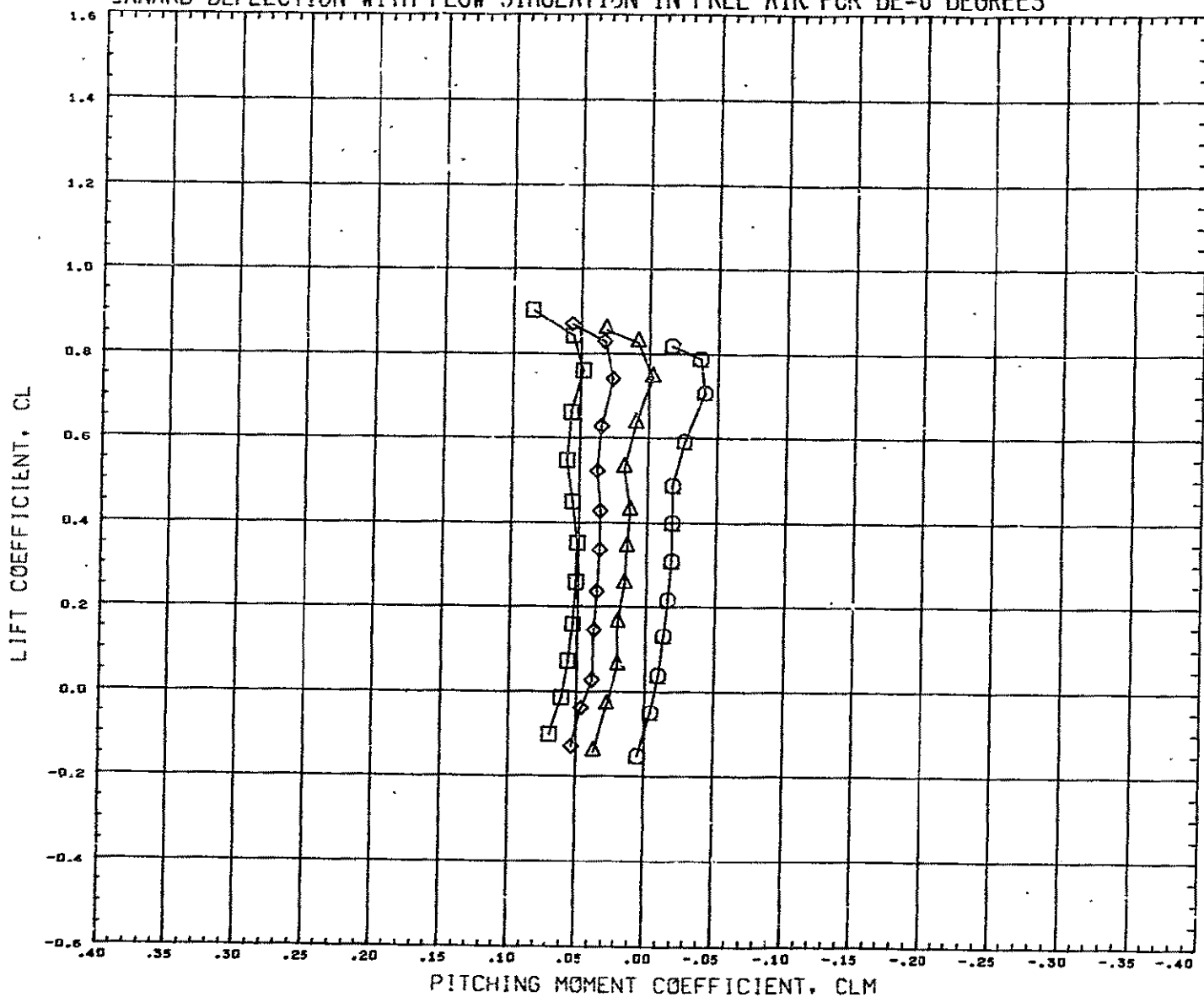
CANARD DEFLECTION WITH FLOW SIMULATION IN FREE AIR FOR DE=0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF04)	GDLST 587-1 B21X1V1C4W16G3E35 DE = 0 DC = -10	0.000	-10.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(CCVF10)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 5	0.000	5.000	0.000	0.000	SRF 30.4400 IN.
(CCVF06)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 10	0.000	10.000	0.000	0.000	XMRF 33.4360 IN.
						YMRF 0.0000 IN.
						ZMRF 3.9380 IN.
						SCALE 0.0175

FLOW 0.520

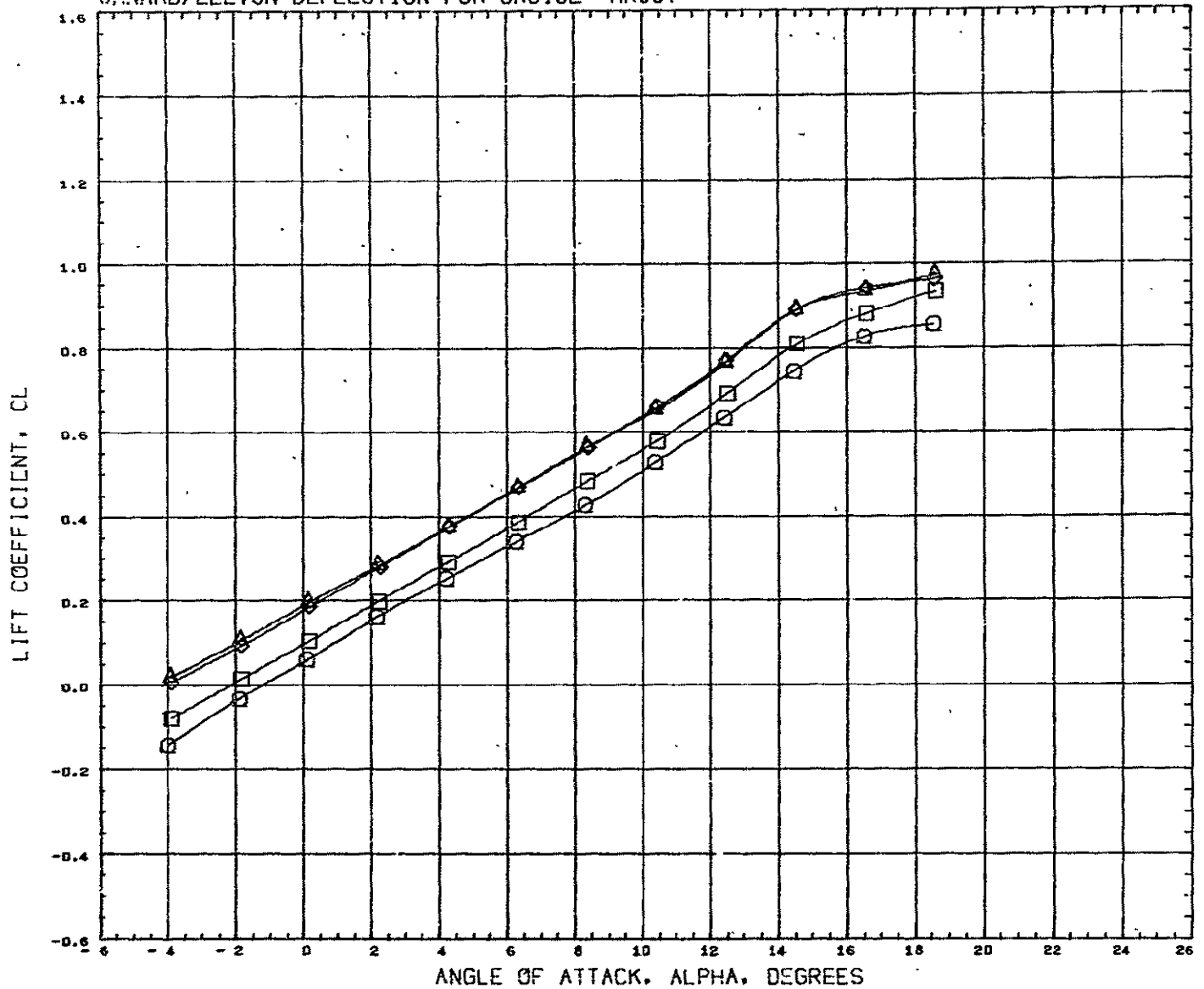
CANARD DEFLECTION WITH FLOW SIMULATION IN FREE AIR FOR DE=0 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF04)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = -10	0.000	-10.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 5 DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
(CCVF10)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 5 DC = 5	0.000	5.000	0.000	0.000	BREF 30.4400 IN.
(CCVF06)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 10	0.000	10.000	0.000	0.000	XMRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

FLOW 0.520

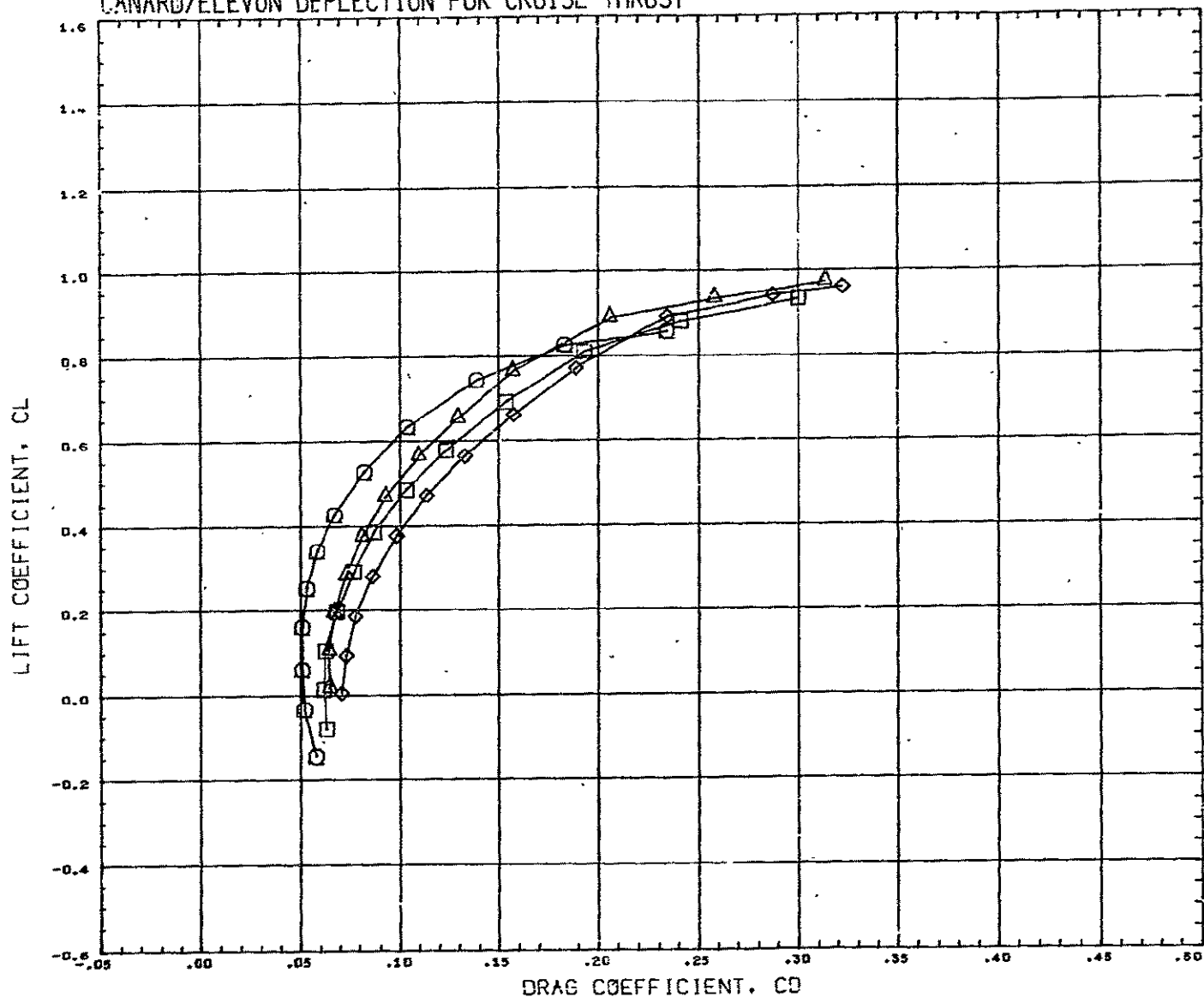
CANARD/ELEVON DEFLECTION FOR CRUISE THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF05)	6DLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SKEF 380.3004 SQ. IN
(CCVF07)	6DLST 587-1 B21X1V7C4W16G3E35 DE = 10 DC = 10	0.000	10.000	10.000	0.000	LREF 15.2150 IN.
(CCVF08)	6DLST 587-1 B21X1V7C4W16G3E35 DE = 10 DC = 20	0.000	20.000	10.000	0.000	BREF 30.4400 IN.
(CCVF09)	6DLST 587-1 B21X1V7C4W16G3E35 DE = 3 DC = 15	0.000	15.000	5.000	0.000	XNRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZNRP 3.9380 IN.
						SCALE 0.0175

FLOW 0.520

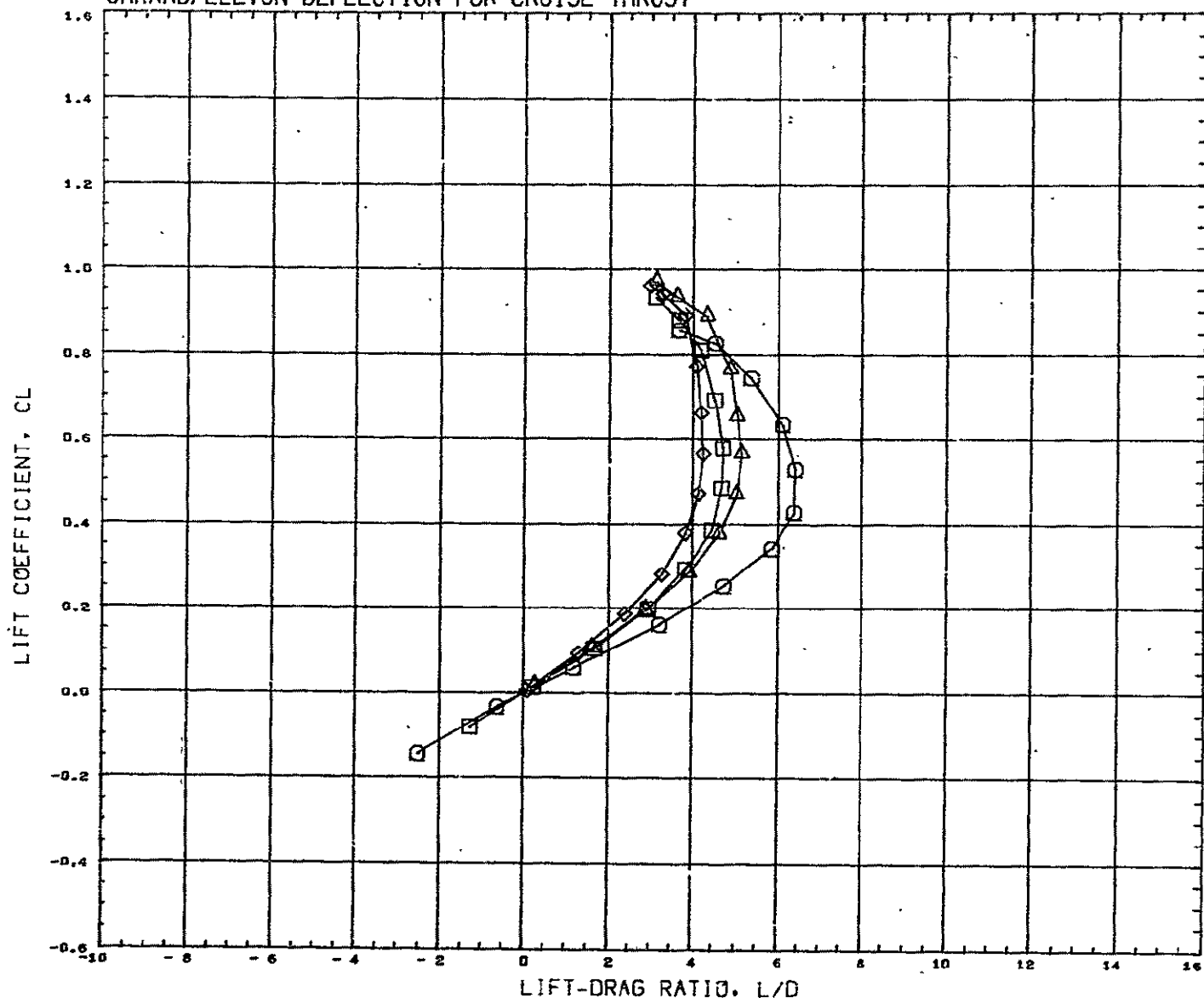
CANARD/ELEVON DEFLECTION FOR CRUISE THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF05)	GDLST 587-1 B21X1V7C4W1663E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF 380.3004 sq. IN
(CCVF07)	GDLST 587-1 B21X1V7C4W1663E35 DE = 10 DC = 10	0.000	10.000	10.000	0.000	LREF 15.250 IN.
(CCVF08)	GDLST 587-1 B21X1V7C4W1663E35 DE = 10 DC = 20	0.000	20.000	10.000	0.000	BREF 30.4400 IN.
(CCVF09)	GDLST 587-1 B21X1V7C4W1663E35 DE = 3 DC = 15	0.000	15.000	3.000	0.000	XMRP 33.4360 IN.
						YMRP 0.6000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

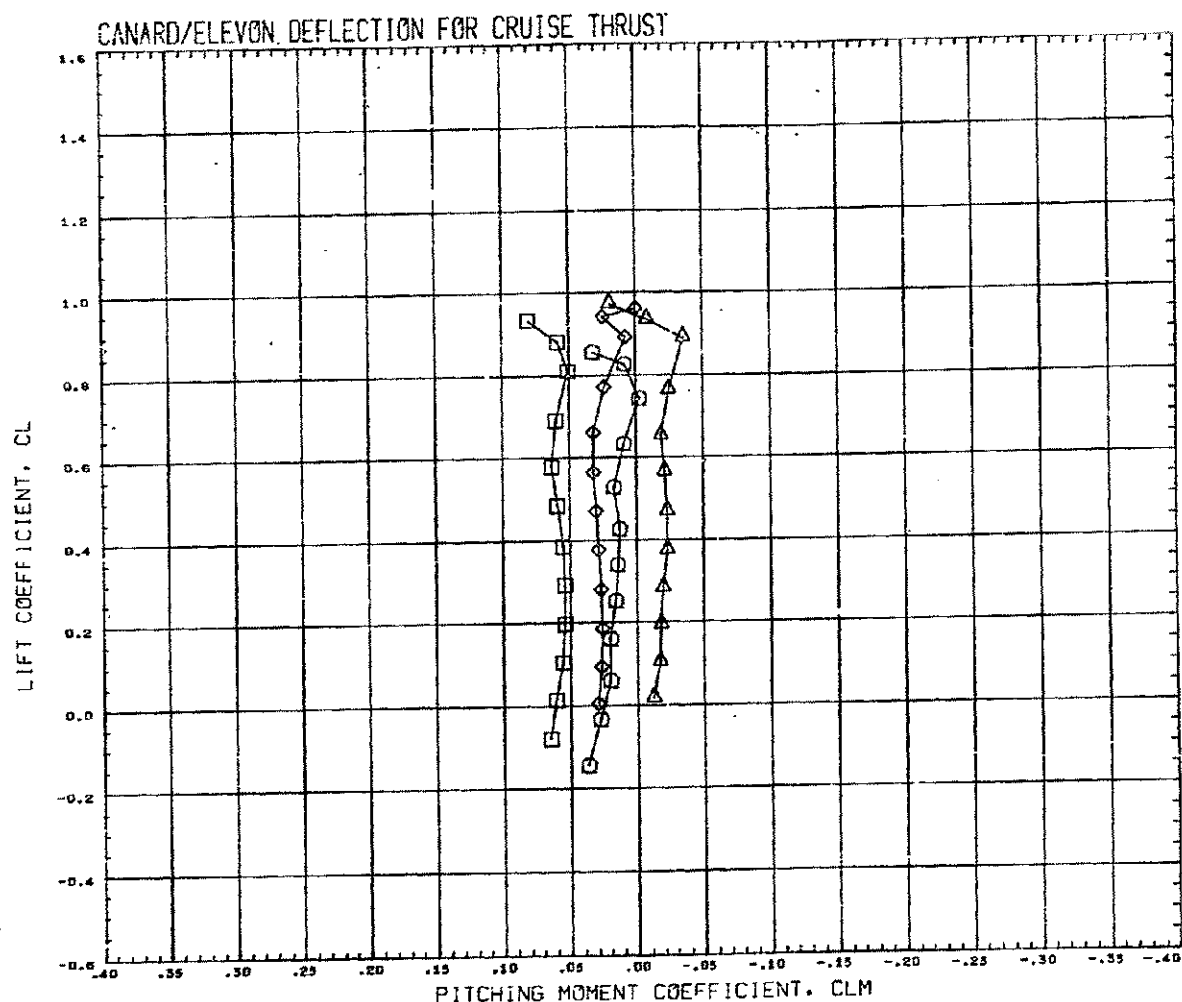
FLOW D.520

CANARD/ELEVON DEFLECTION FOR CRUISE THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVF07)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 10 DC = 10	0.000	10.000	10.000	0.000	LRFP 15.2150 IN.
(CCVF08)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 10 DC = 20	0.000	20.000	10.000	0.000	BRFP 30.4400 IN.
(CCVF09)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 3 DC = 15	0.000	15.000	3.000	0.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

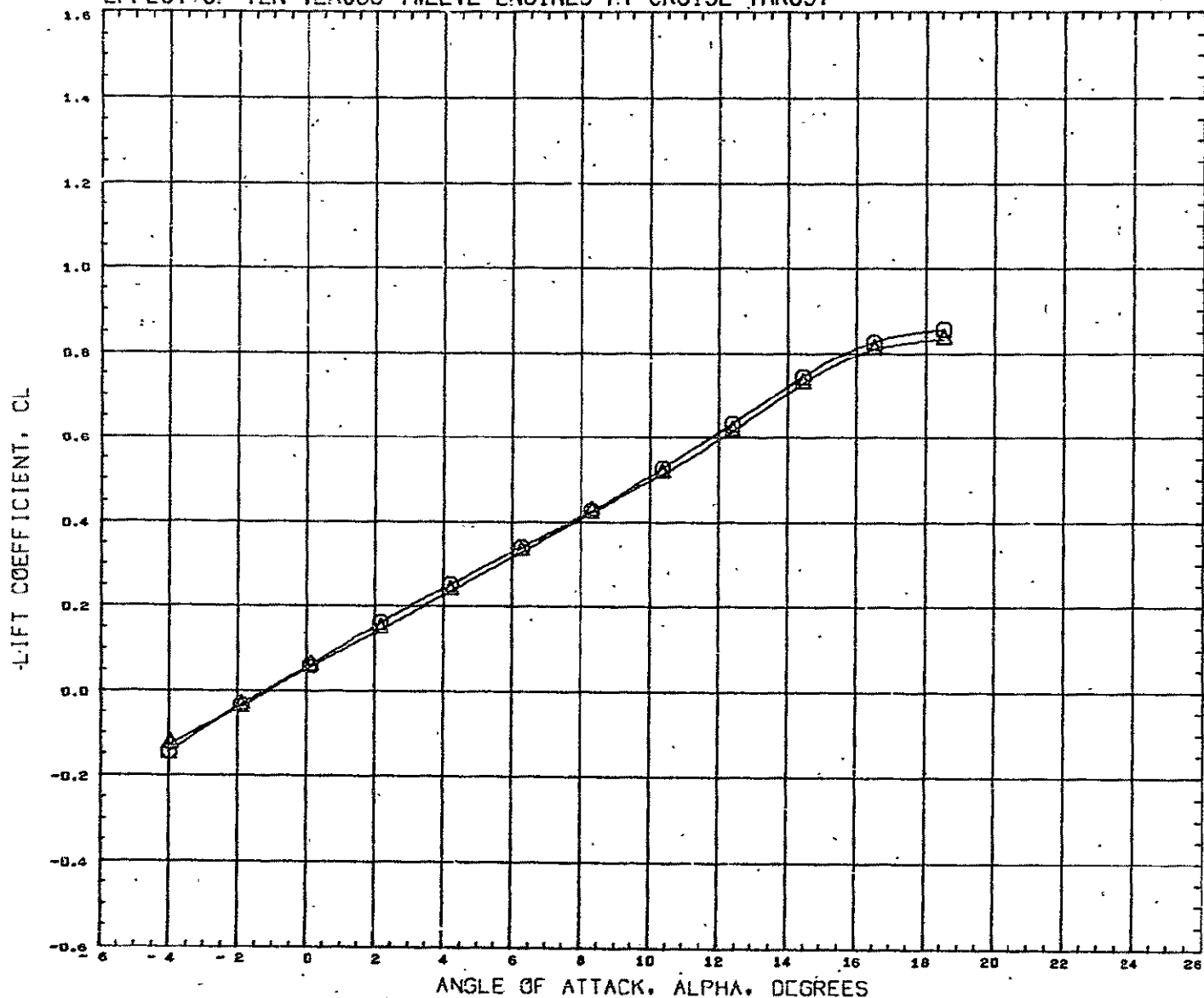
FLOW 0.320



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVT	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVF07)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 10 DC = 10	0.000	10.000	10.000	0.000	LREF 15.2150 IN.
(CCVF08)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 10 DC = 20	0.000	20.000	10.000	0.000	BREF 30.4400 IN.
(CCVF09)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 3 DC = 15	0.000	15.000	5.000	0.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9350 IN.
						SCALE 0.0175

FLOW 0.520

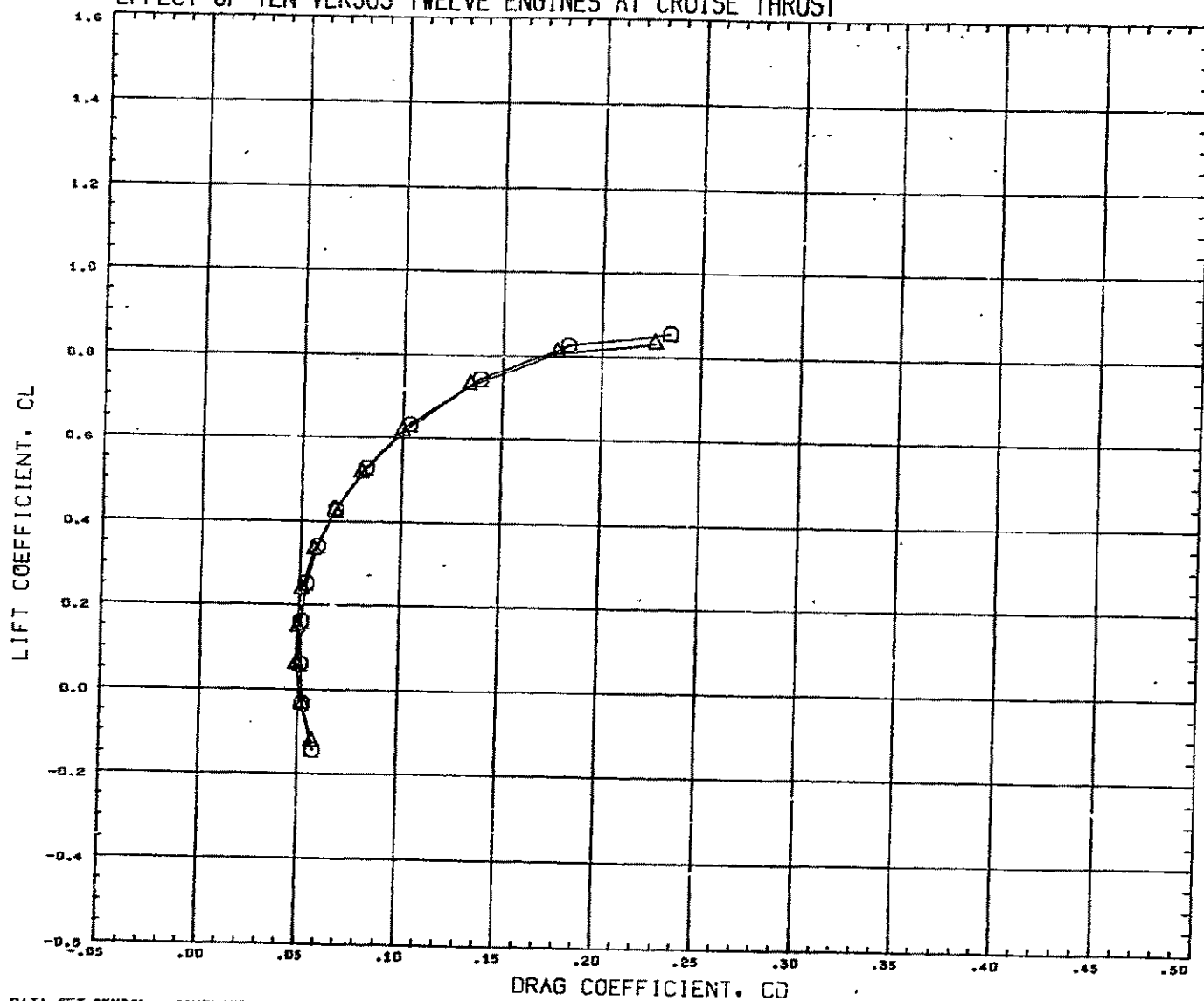
EFFECT OF TEN VERSUS TWELVE ENGINES AT CRUISE THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVT	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVF12)	GDLST 587-1 B21X1V7C4W16E36 DE = 0 DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
						BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

FLOW 0.523

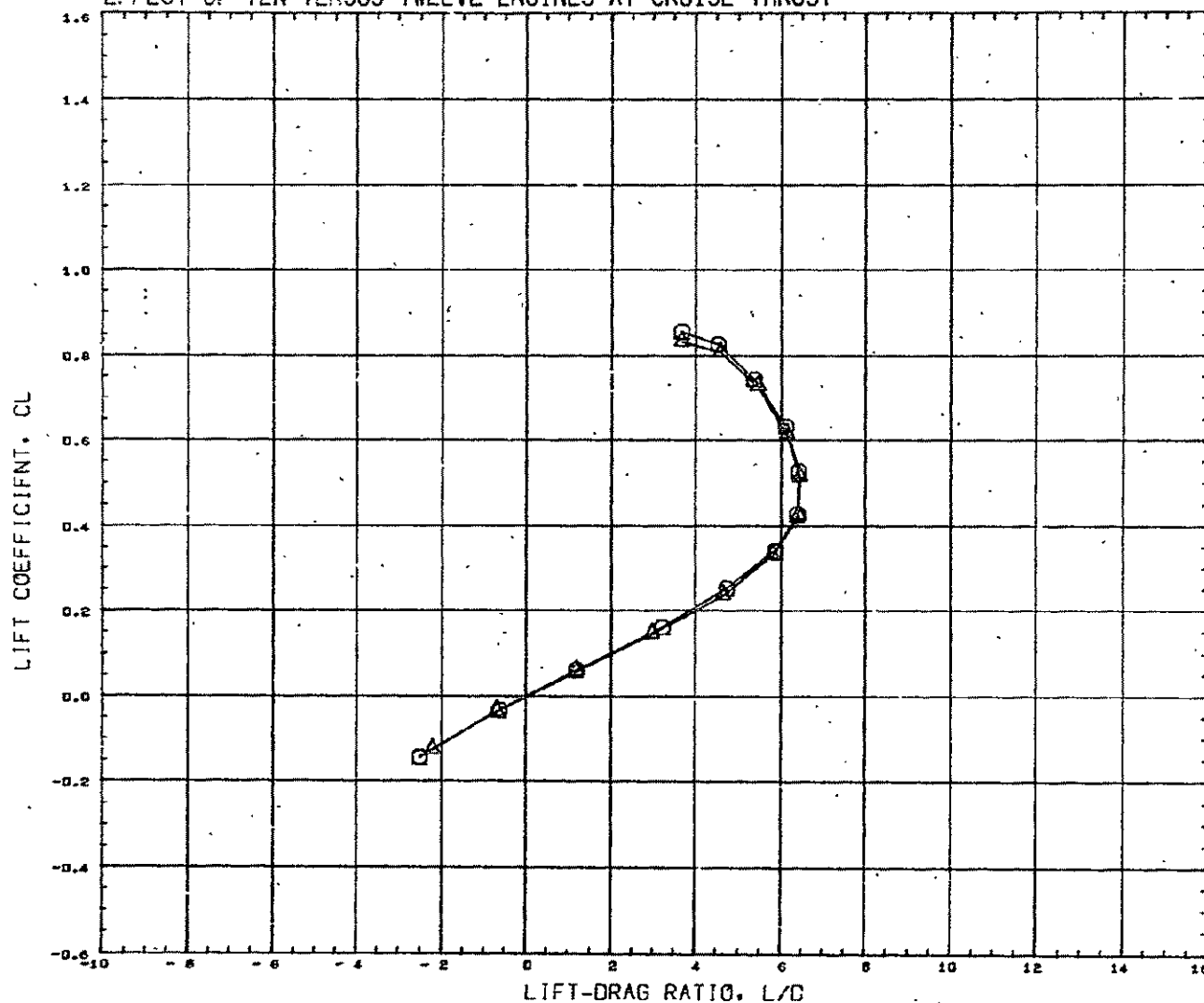
EFFECT OF TEN VERSUS TWELVE ENGINES AT CRUISE THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVT	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF05)	GDLST 587-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVF12)	GDLST 587-1 B21X1V7C4W16E36 DE = 0 DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
						BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9390 IN.
						SCALE 0.0175

FLOW 0.520

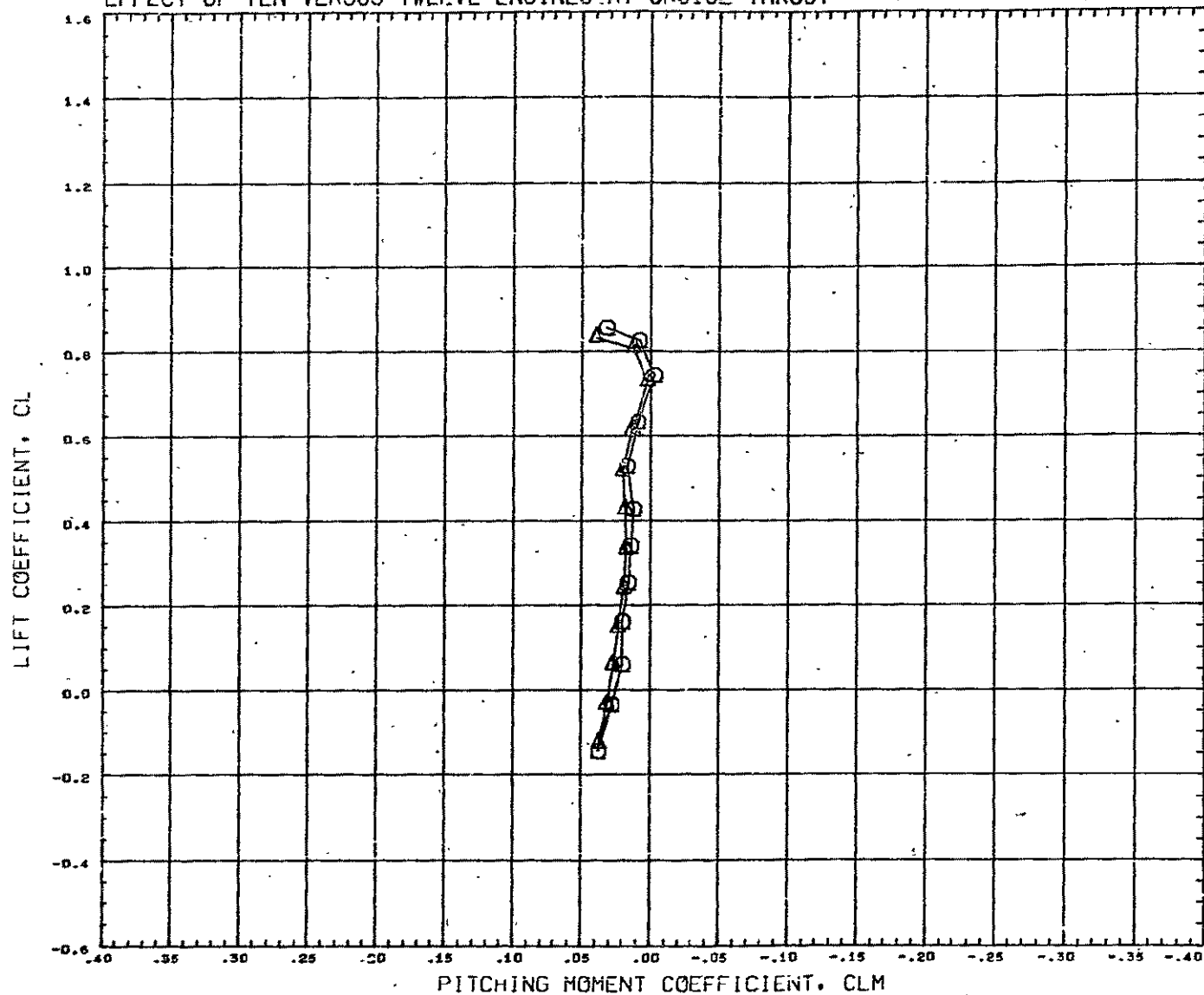
EFFECT OF TEN VERSUS TWELVE ENGINES AT CRUISE THRUST



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTB	ELEVTR	AILR W	REFERENCE INFORMATION
(CCVF05)	GDLST 567-1 B21X1V7C4W16G3E35 DE = 0 DC = 0	0.000	0.000	0.000	0.00	SRLP 300.3004 sq. in
(CCVF12)	GDLST 567-1 B21X1V7C4W16E36 DE = 0 DC = 0	0.000	0.000	0.000	0.00	LREF 15.2150 in.
						BREF 30.4400 in.
						XMRP 33.4360 in.
						YMRP 0.0000 in.
						ZMRP 2.9380 in.
						SCALE 0.0175

FLOW 0.520

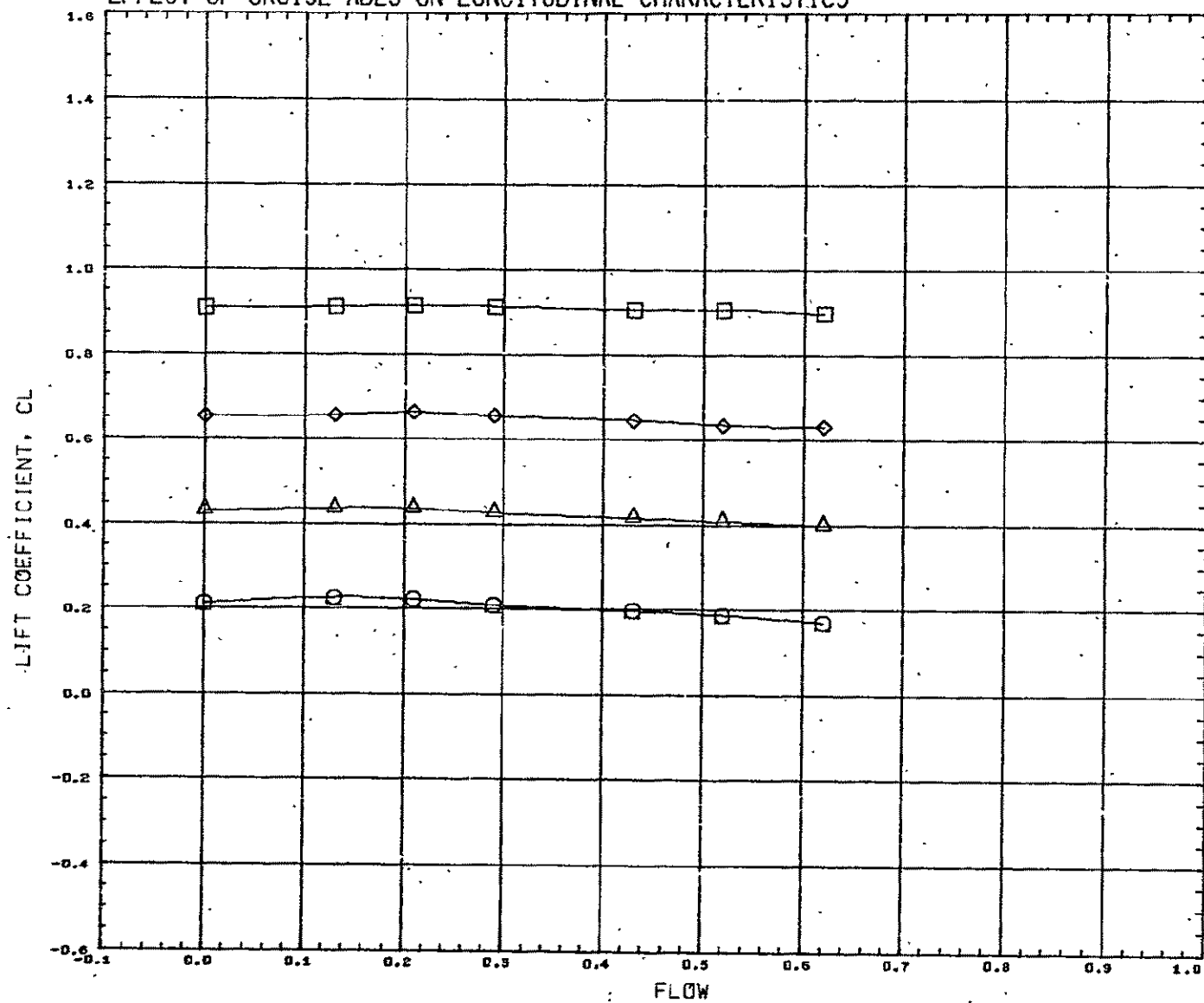
EFFECT OF TEN VERSUS TWELVE ENGINES AT CRUISE THRUST



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANYTR	ELEVTR	AILRON	REFERENCE INFORMATION
(CCVF05)	○	GDLST 587-1 B21X1V7C4W16E35 DE = 0 DC = 0	0.000	0.000	0.000	0.000	SREF 380.3004 SQ. IN
(CCVF12)	△	GDLST 587-1 B21X1V7C4W16E36 DE = 0 DC = 0	0.000	0.000	0.000	0.000	LREF 15.2150 IN.
							BREF 30.4400 IN.
							XMRP 33.4360 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.0175

FLOW 0.520

EFFECT OF CRUISE ABES ON LONGITUDINAL CHARACTERISTICS

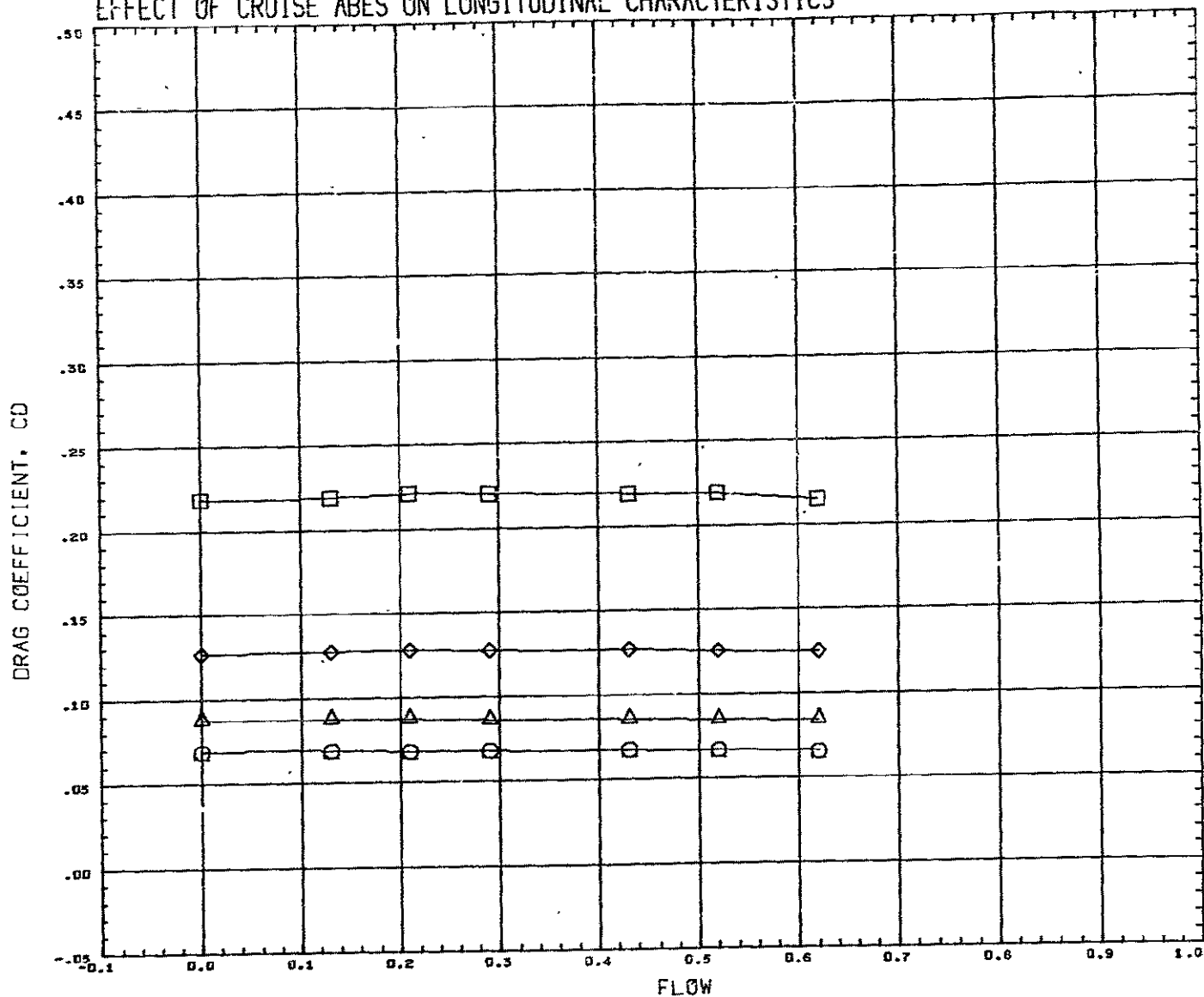


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	5.000	RUDDER	0.000	ELEVTR	10.000
◇	10.000	AILRON	0.000	CANVTR	10.000
□	15.000	CAHRON	0.000		

DATA HIST. CODE : HVV#E1

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.5380	IN.
SCALE	0.0175	

EFFECT OF CRUISE ABES ON LONGITUDINAL CHARACTERISTICS

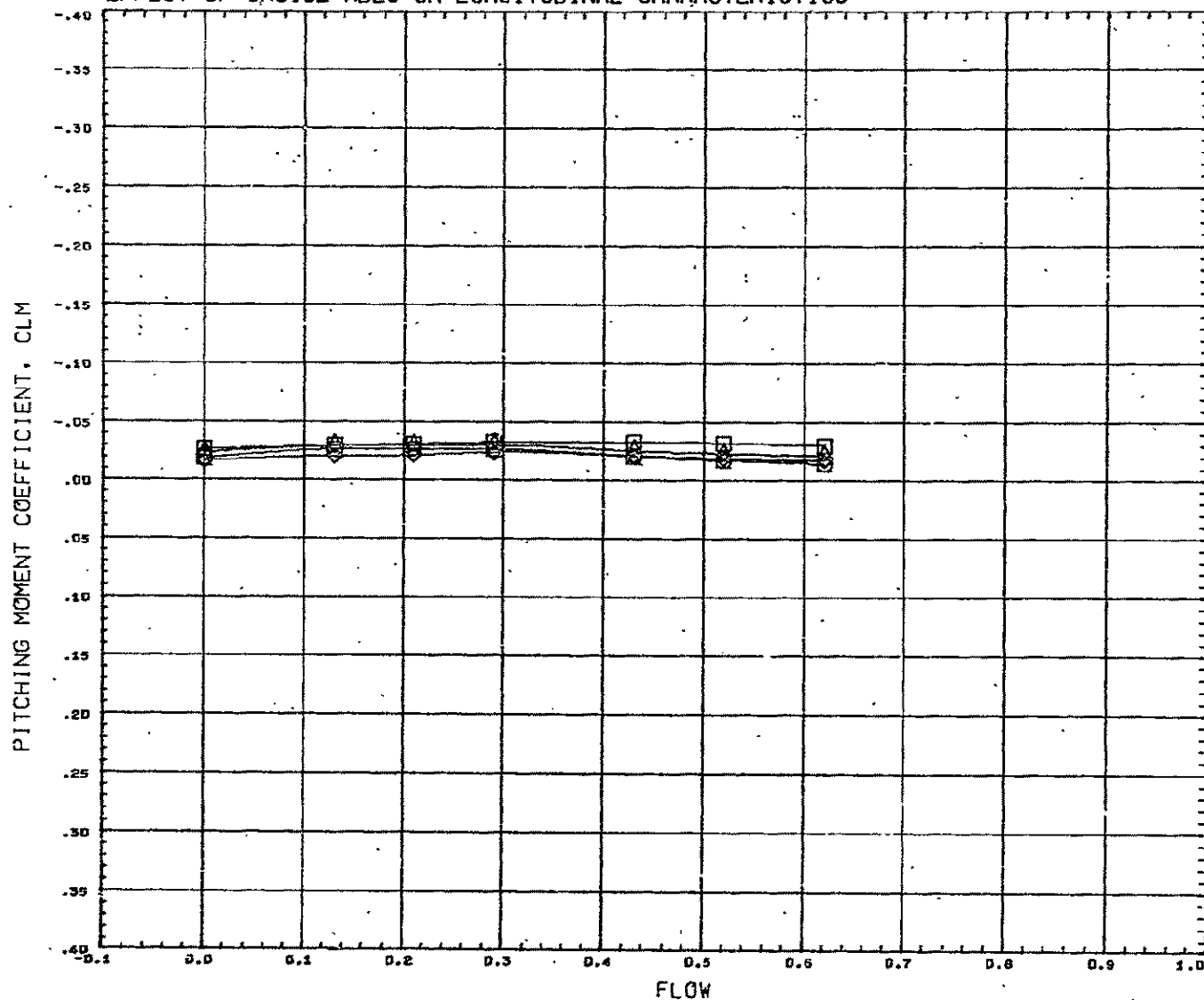


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	0.000	0.000	MACH	0.201	
△	5.000	0.000	ELEVTR	10.000	
◇	10.000	0.000	CANVTR	10.000	
□	15.000	0.000	CANROW	0.000	

REFERENCE INFORMATION		
SREF	380.3064	59. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9340	IN.
SCALE	0.0175	

DATA HISY. CODE MVV#EI

EFFECT OF CRUISE ABES ON LONGITUDINAL CHARACTERISTICS

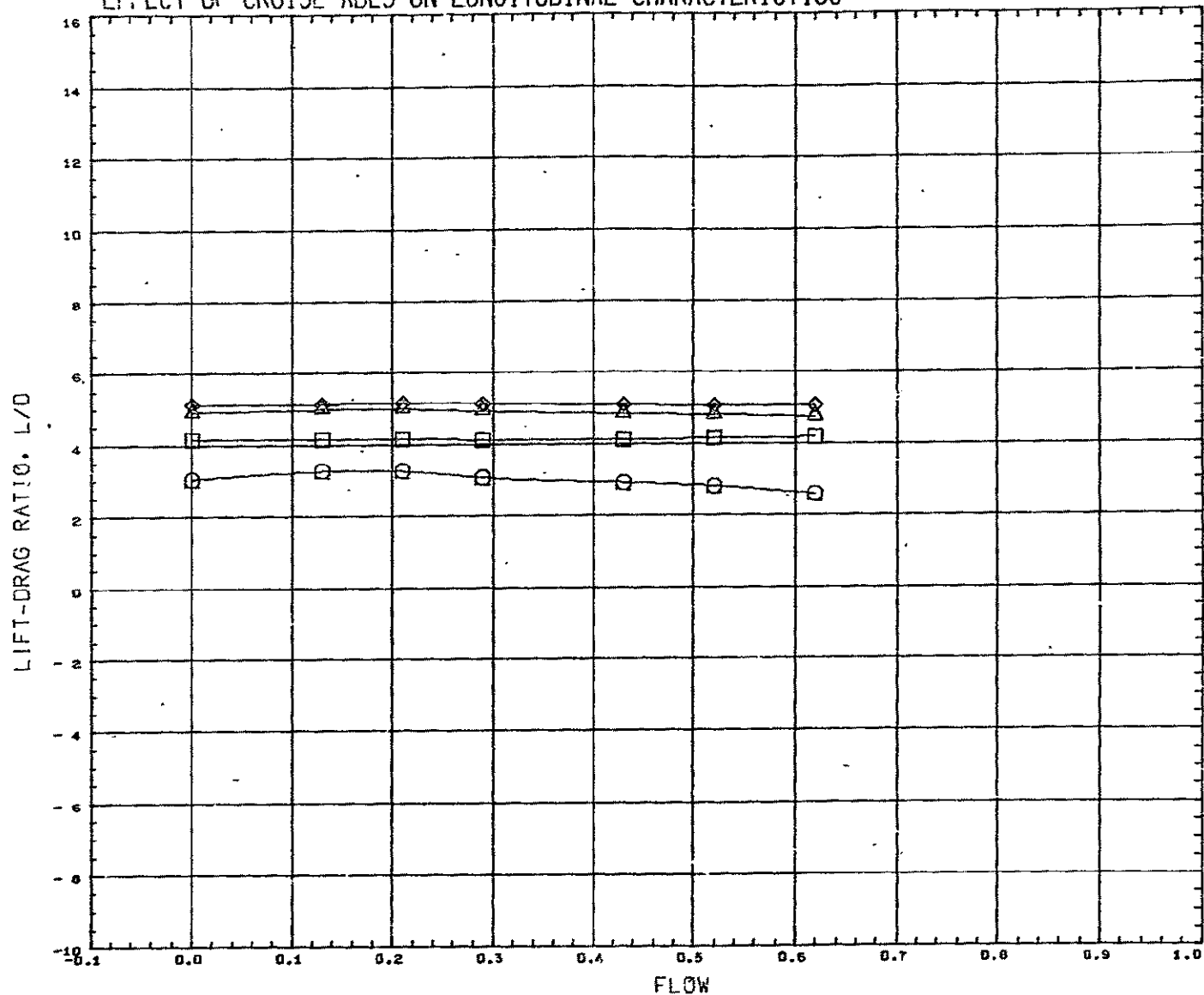


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
◇	5.000	RUDDER	0.000	ELEVTR	10.030
□	10.000	AILRON	0.000	CANVTR	10.000
○	15.000	CANRON	0.000		

DATA HIST. CODE MVV4EI

REFERENCE INFORMATION		
SREF	380.3004	SG. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF CRUISE ABES ON LONGITUDINAL CHARACTERISTICS

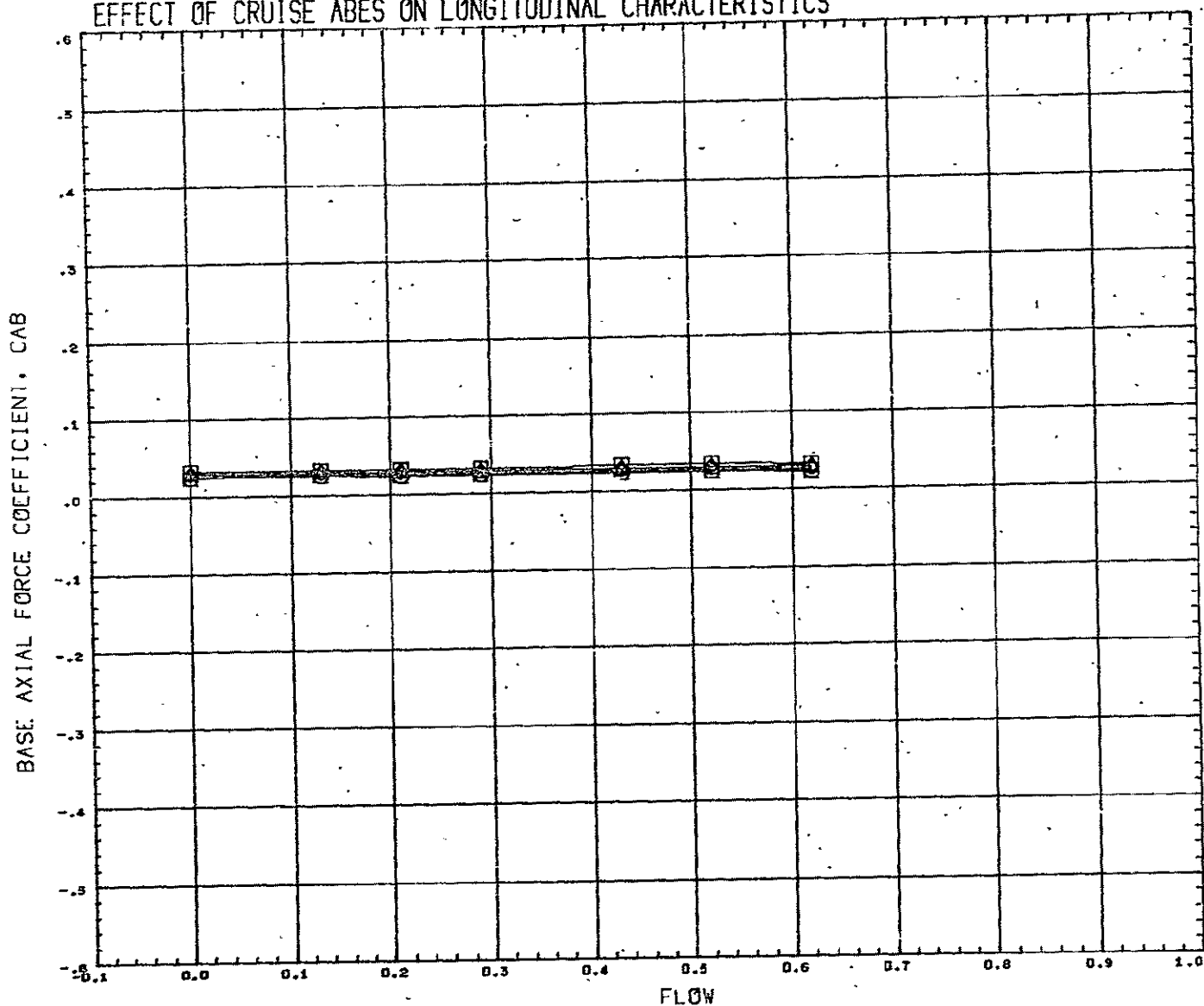


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	0.000	0.000	MACH	0.201
△	5.000	0.000	ELEVTR	10.000
◇	10.000	0.000	CANVTR	10.000
□	15.000	0.000		

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN.
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE MVV#E1

EFFECT OF CRUISE ABES ON LONGITUDINAL CHARACTERISTICS

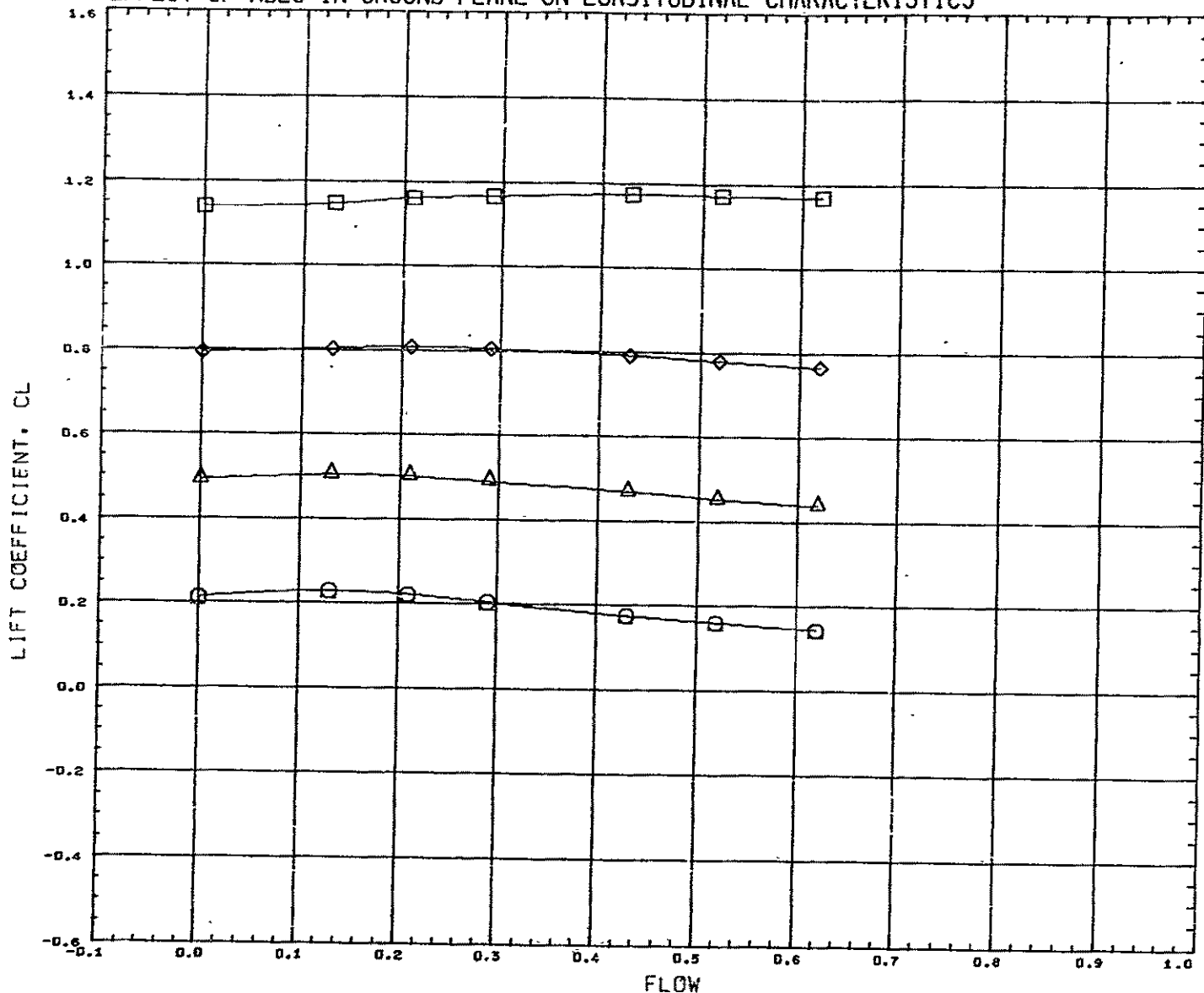


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	0.000	0.000	MACH	0.201	
△	5.000	0.000	ELEVTR	10.000	
◇	10.000	0.000	CANVTR	10.000	
□	15.000	0.000	CANCRN	0.000	

REFERENCE INFORMATION		
SREF	380.3004	sq. in
LREF	15.2150	in.
BREF	30.4400	in.
XMRP	33.4360	in.
YMRP	0.0000	in.
ZMRP	3.9380	in.
SCALE	0.0175	

DATA HIST. CODE NVV#E1

EFFECT OF ABES IN GROUND PLANE ON LONGITUDINAL CHARACTERISTICS

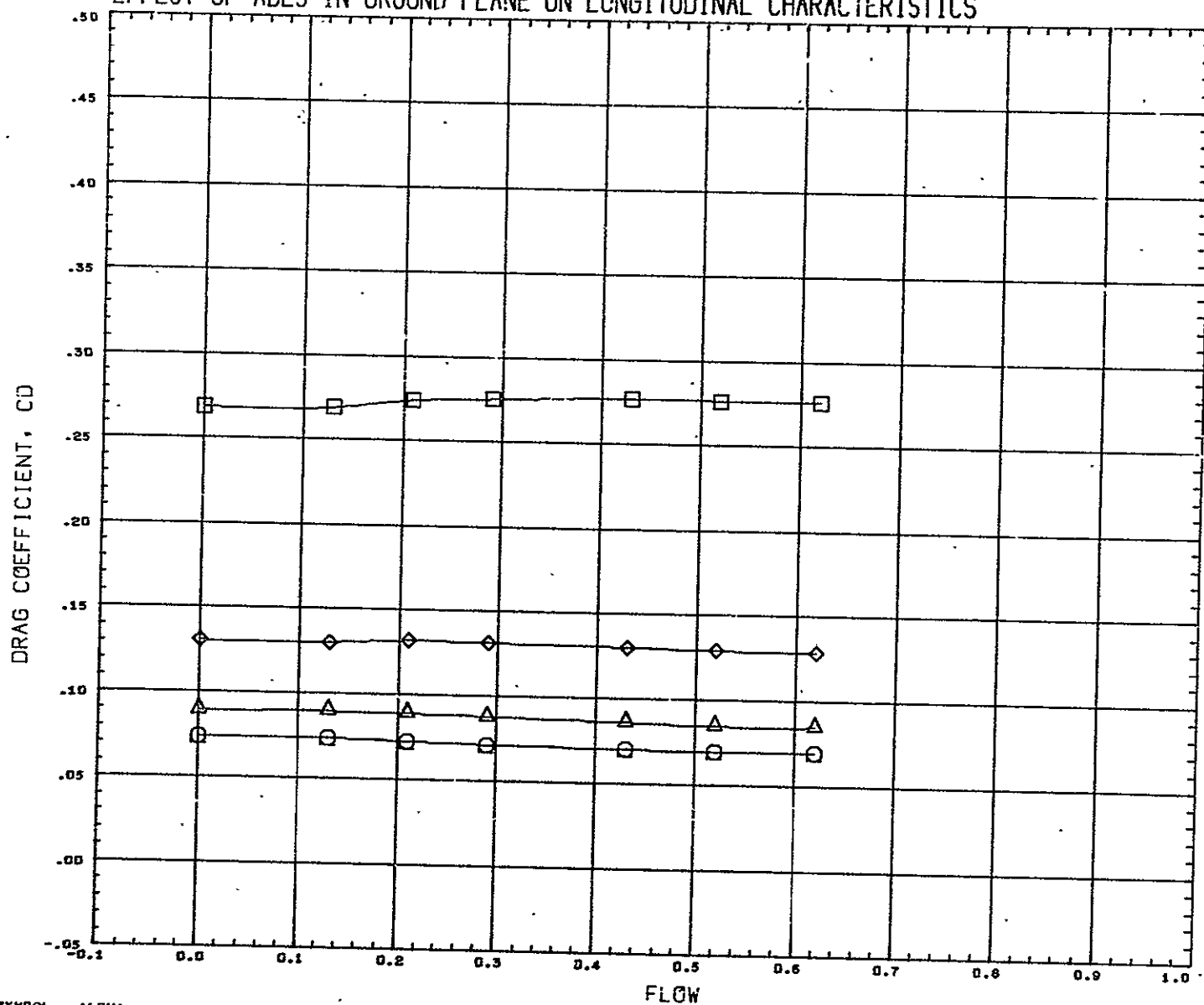


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	5.000	RUDDER	0.000	ELEVTR	10.000
◇	10.000	AILRON	0.000	CANVTR	10.000
□	15.000	CANRON	0.000		

DATA HIST. CODE MVV#E1

REFERENCE INFORMATION		
SREF	380.3004	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

EFFECT OF ABES IN GROUND PLANE ON LONGITUDINAL CHARACTERISTICS

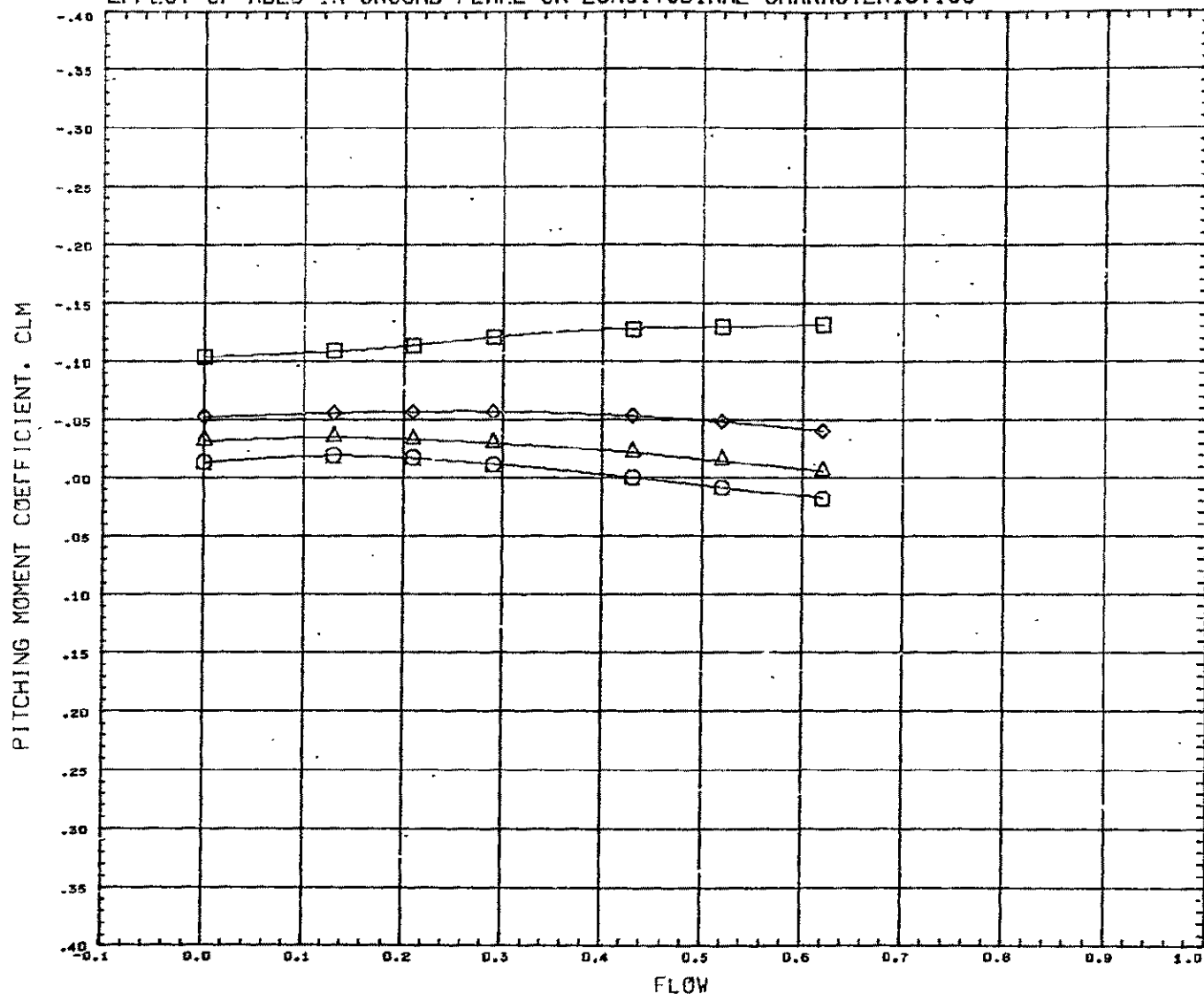


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	0.000	BETA	0.000	MACH	0.201
△	5.000	RUDDER	0.000	ELEVTR	10.000
◇	10.000	AIRON	0.000	CANVTR	10.000
□	15.000	CANON	0.000		

DATA HIST. CODE MVV#E1

REFERENCE INFORMATION		
SREF	380.3004	Sq. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9360	IN.
SCALE	0.0175	

EFFECT OF ABES IN GROUND PLANE ON LONGITUDINAL CHARACTERISTICS

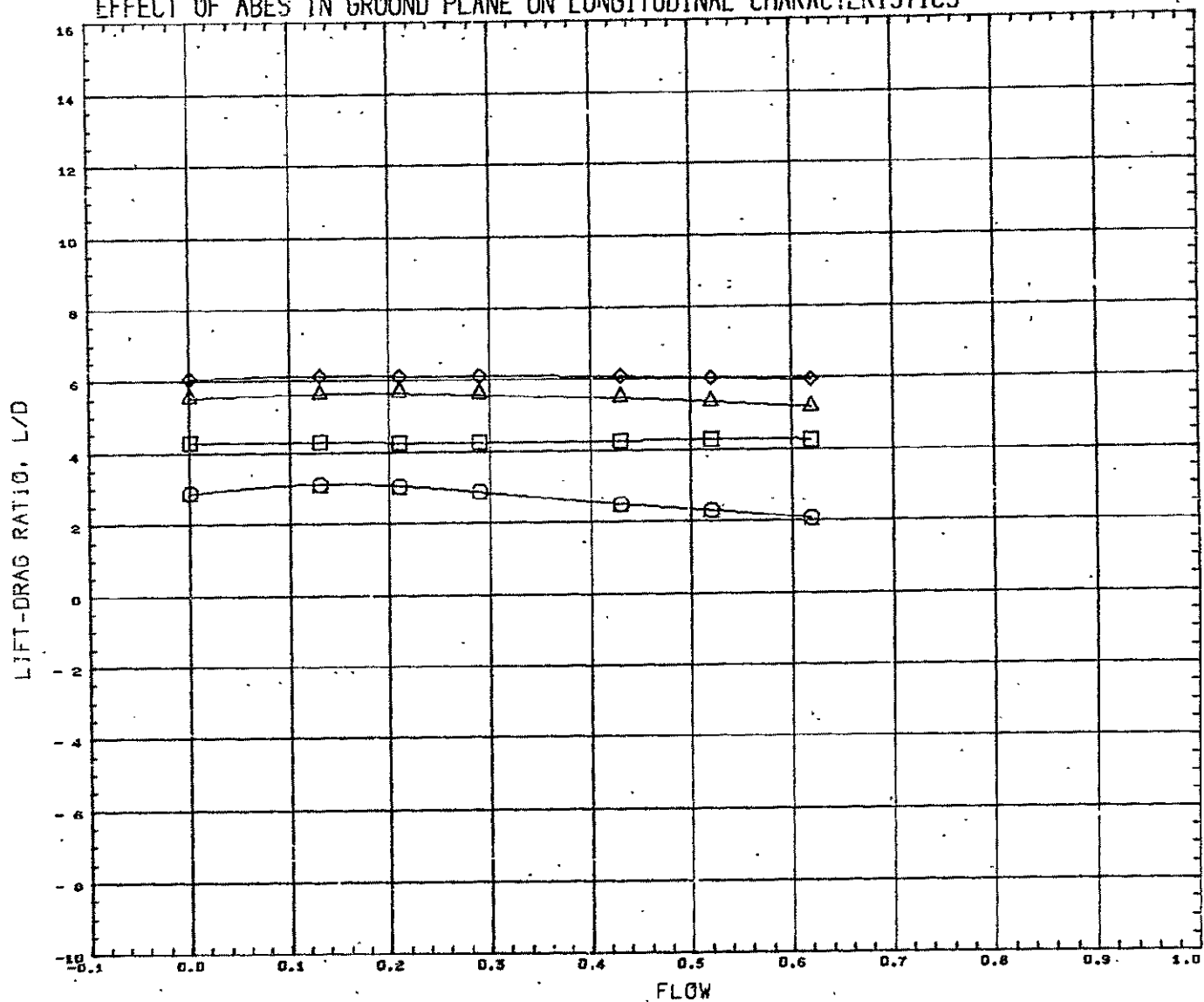


SYMBOL	PARAMETRIC VALUES				REFERENCE INFORMATION	
	ALPHA	BETA	MACH		SREF	SQ. IN
○	0.000	0.000	0.201		LREF	15.2150
△	5.000	0.000	ELEVTR	10.000	BREF	30.4400
◇	10.000	0.000	CANVTR	10.000	XMRP	33.4360
□	15.000	0.000			YMRP	0.0000
					ZMRP	3.9360
					SCALE	0.0175

DATA HIST. CODE HVVMEI

GD:ST 587-1 B21X1V7C4W16G3E35 + GP DC= 10 DE=10 (MCVGF3). 24 JUL 71 P:RF 212

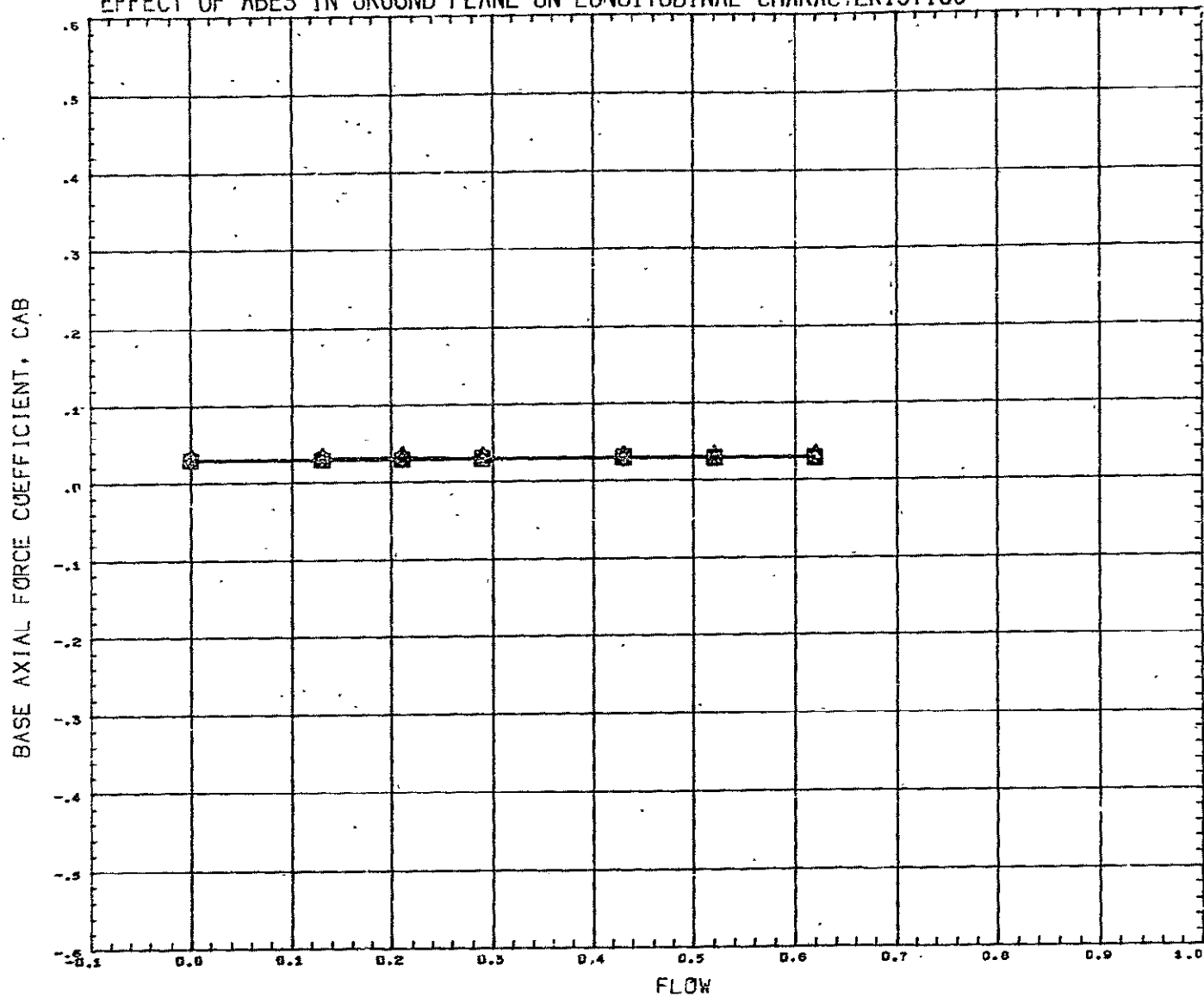
EFFECT OF ABES IN GROUND PLANE ON LONGITUDINAL CHARACTERISTICS



SYMBOL	PARAMETRIC VALUES				REFERENCE INFORMATION		
	ALPHA	BETA	MACH		SREF	SR	IN
○	0.000	0.000	0.201		LREF	15.2156	IN.
△	5.000	RUDDER	0.000	ELEVTR	BREF	30.4400	IN.
◇	10.000	AIRCON	0.000	CANVTR	XMRP	35.4360	IN.
□	15.000	CANCON	0.000		YMRP	0.0000	IN.
					ZMRP	3.9380	IN.
					SCALE	0.0175	

DATA HIST. CODE MVV*E1

EFFECT OF ABES IN GROUND PLANE ON LONGITUDINAL CHARACTERISTICS

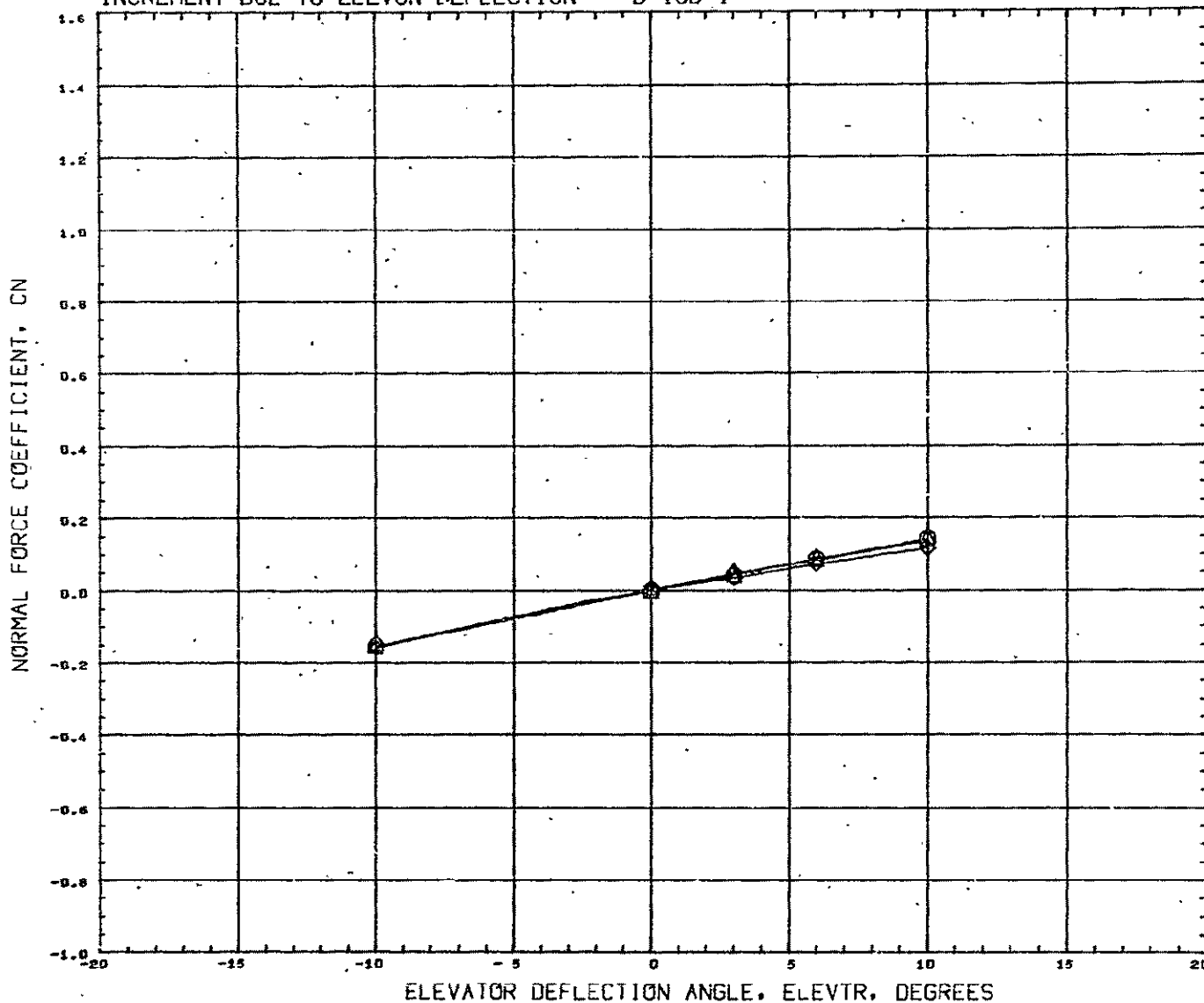


SYMBOL	ALPHA	PARAMETRIC VALUES			
□	0.000	BETA	0.000	MACH	0.201
◇	5.000	RUDDER	0.000	ELEVTR	10.000
◇	10.000	AILRON	0.000	CANVTR	10.000
□	15.000	CANRON	0.000		

DATA HIST. CODE HVV4E1

REFERENCE INFORMATION		
SREF	380.3004	50. IN
REF	15.2150	IN.
REF	30.4400	IN.
MRP	33.4360	IN.
MRP	0.0000	IN.
MRP	3.9380	IN.
CALE	0.0175	

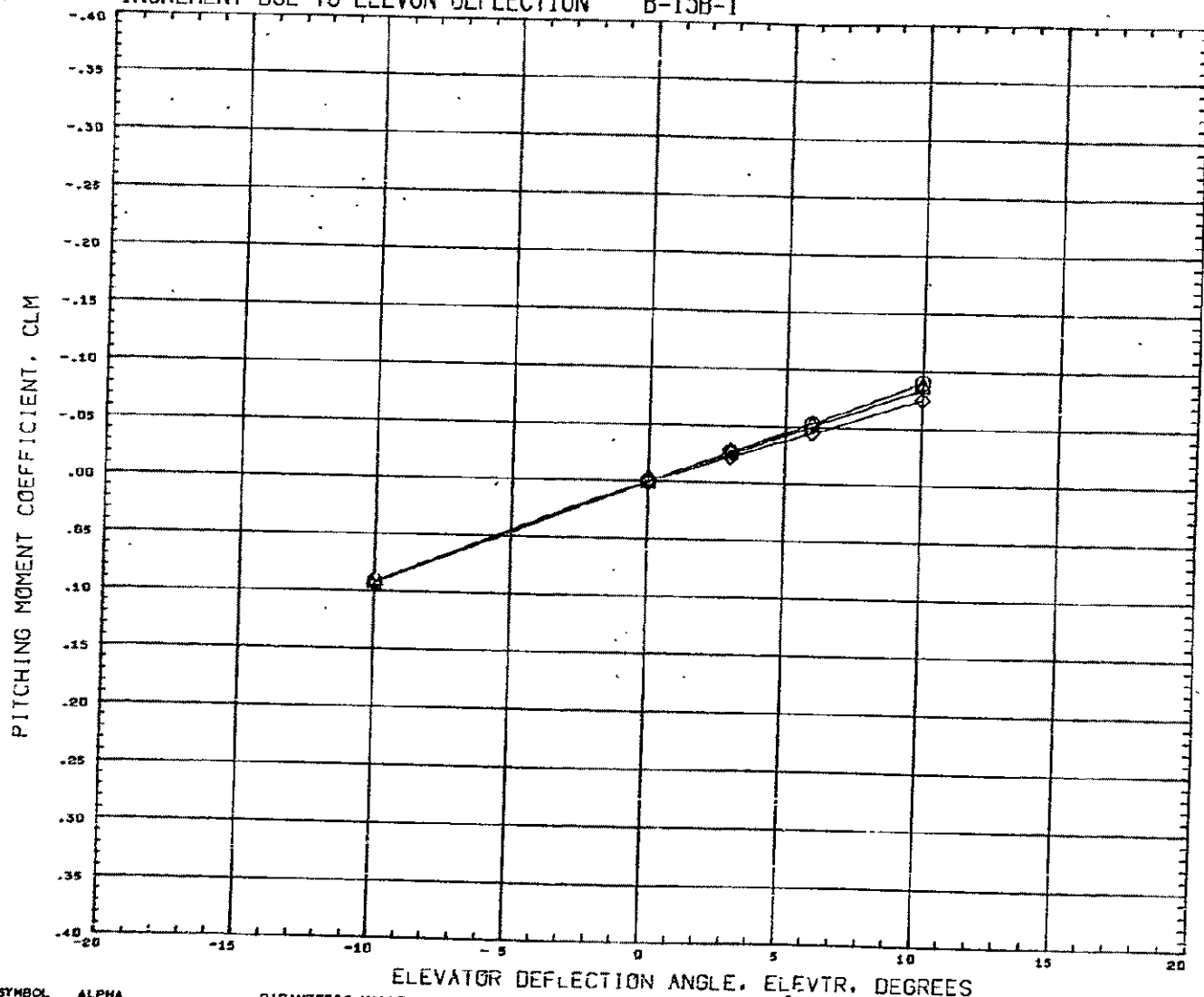
INCREMENT DUE TO ELEVON DEFLECTION B-158-1



YMBOL		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○		0.000	BETA	0.000	MACH	0.201	DATASET	ELEVTR	SREF
△		0.000	RUDDER	0.000	CANVTR	0.000	JCV021	-10.000	LREF
◇		10.000	CANTRON	0.000	AILRON	0.000	JCV023	3.000	BREF
							JCV025	10.000	XNRP
									YHRP
									ZHRP
									SCALE

DATA HIST. CODE MVV*ATI*0

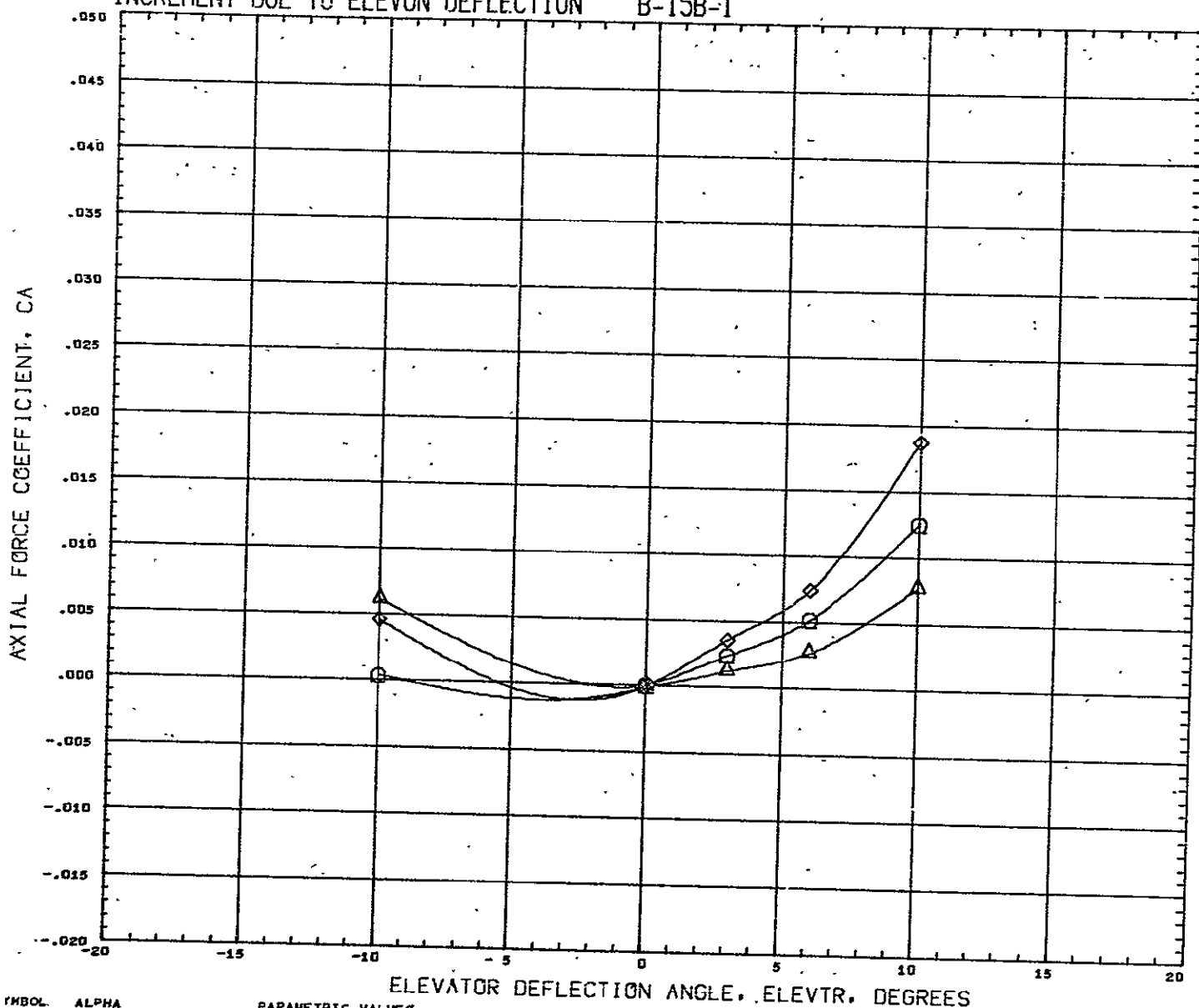
INCREMENT DUE TO ELEVON DEFLECTION B-15B-1



SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	0.000	MACH 0.201	JCV021	380.3004 SQ. IN
△	0.000	0.000	CANVTR 0.000	JCV022	15.2150 IN.
◇	0.000	0.000	AILRON 0.000	JCV023	30.4400 IN.
				JCV024	33.4360 IN.
					YMRP 0.0000 IN.
					ZMRP 3.5380 IN.
					SCALE 0.0175

DATA HIST. CODE MVV*ATI*
 GDLST 587-1, B21X1C4V7W16 DC = 0 DE = -10 (JCV021) 24 JUL 71, P.36 316

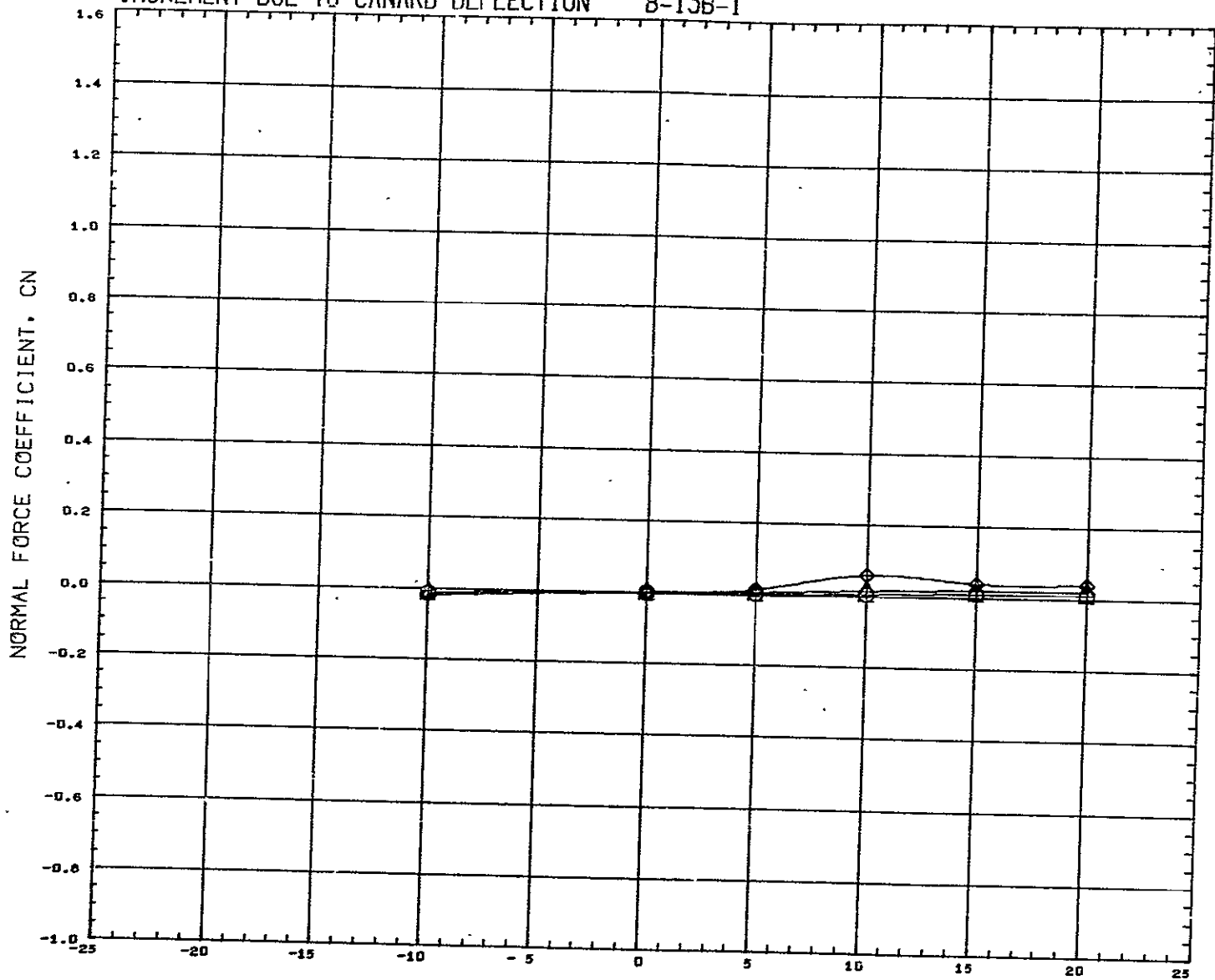
INCREMENT DUE TO ELEVON DEFLECTION B-15B-1



SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	MACH	DATA SOURCE	REFERENCE INFORMATION
○	0.000	0.000	0.000	0.201	JCV021	380.3004
△	6.000	0.000	0.000	0.000	JCV022	15.2150
◇	16.000	0.000	0.000	0.000	JCV023	30.4400
					JCV024	33.4360
						0.0000
						3.5380
						0.0175

DATA HIST. CODE MVV#ATI0C

INCREMENT DUE TO CANARD DEFLECTION 8-15B-1

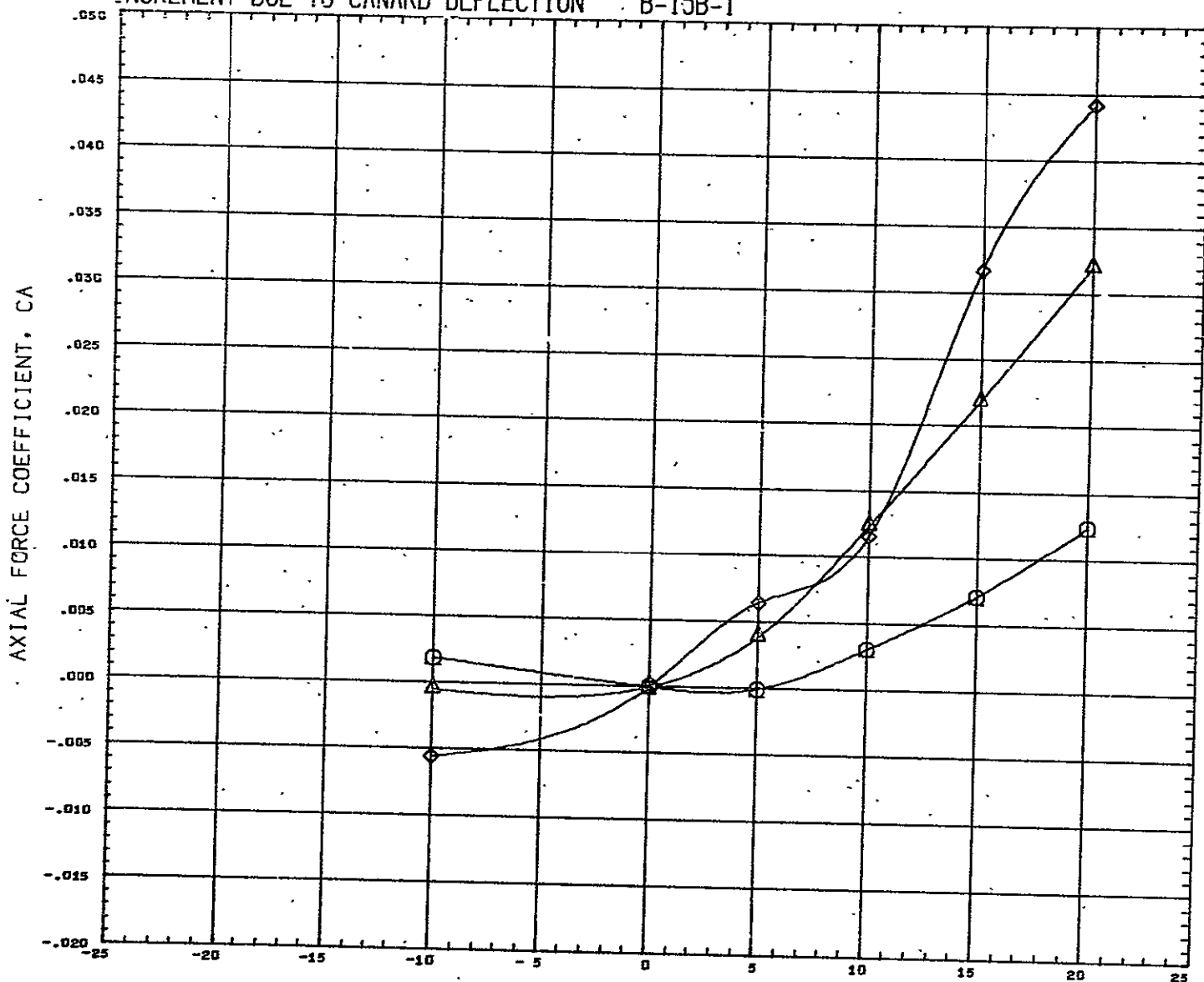


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	0.000	BETA	0.000	MACH	0.201	DATASET	CANVTR			SREF	380.3004	SG. IN
△	8.000	RUDDER	0.000	CANRON	0.000	JCV030	- 10.000	JCV022	0.000	LREF	15.2150	IN.
◇	16.000	ELEVTR	0.000	AILRON	0.300	JCV026	5.000	JCV027	10.000	BREF	30.4400	IN.
						JCV028	15.000	JCV029	20.000	XMRP	33.4360	IN.
										YMRP	0.0000	IN.
										ZMRP	3.9380	IN.
										SCALE	0.0175	

DATA HIST. CODE MVVTI#C

GDLST 587-1 B21X1C4V7W16 DC = -10 DE = 0 (JCV030) 24 JUL 71 P/SE 318

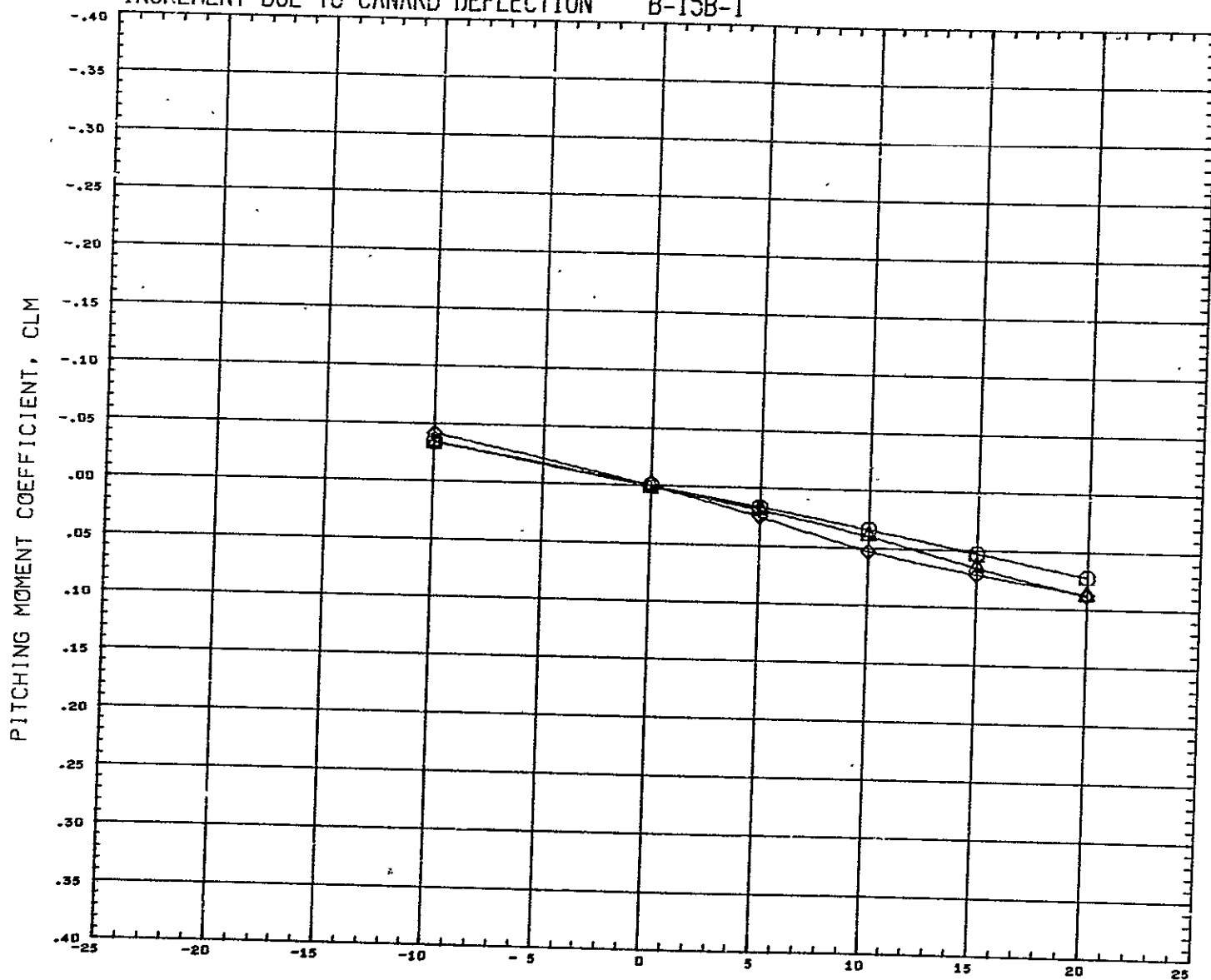
INCREMENT DUE TO CANARD DEFLECTION B-15B-1



SYMBOL	PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	BETA	MACH	DATASET	CANVTR	DATASET	CANVTR	SREF	LREF	SR. IN
○	0.000	0.000	0.201	JCV030	-10.000	JCV022	0.000	380.3004	15.2150	IN.
△	8.000	RUDDER	0.000	JCV026	5.000	JCV027	10.000	30.4400	33.4360	IN.
◇	16.000	ELEVTR	0.000	JCV028	15.000	JCV029	20.000	0.0000	3.9380	IN.
								YMRP	0.0175	IN.
								ZMRP		
								SCALE		

DATA HIST. CODE MVVTI#C

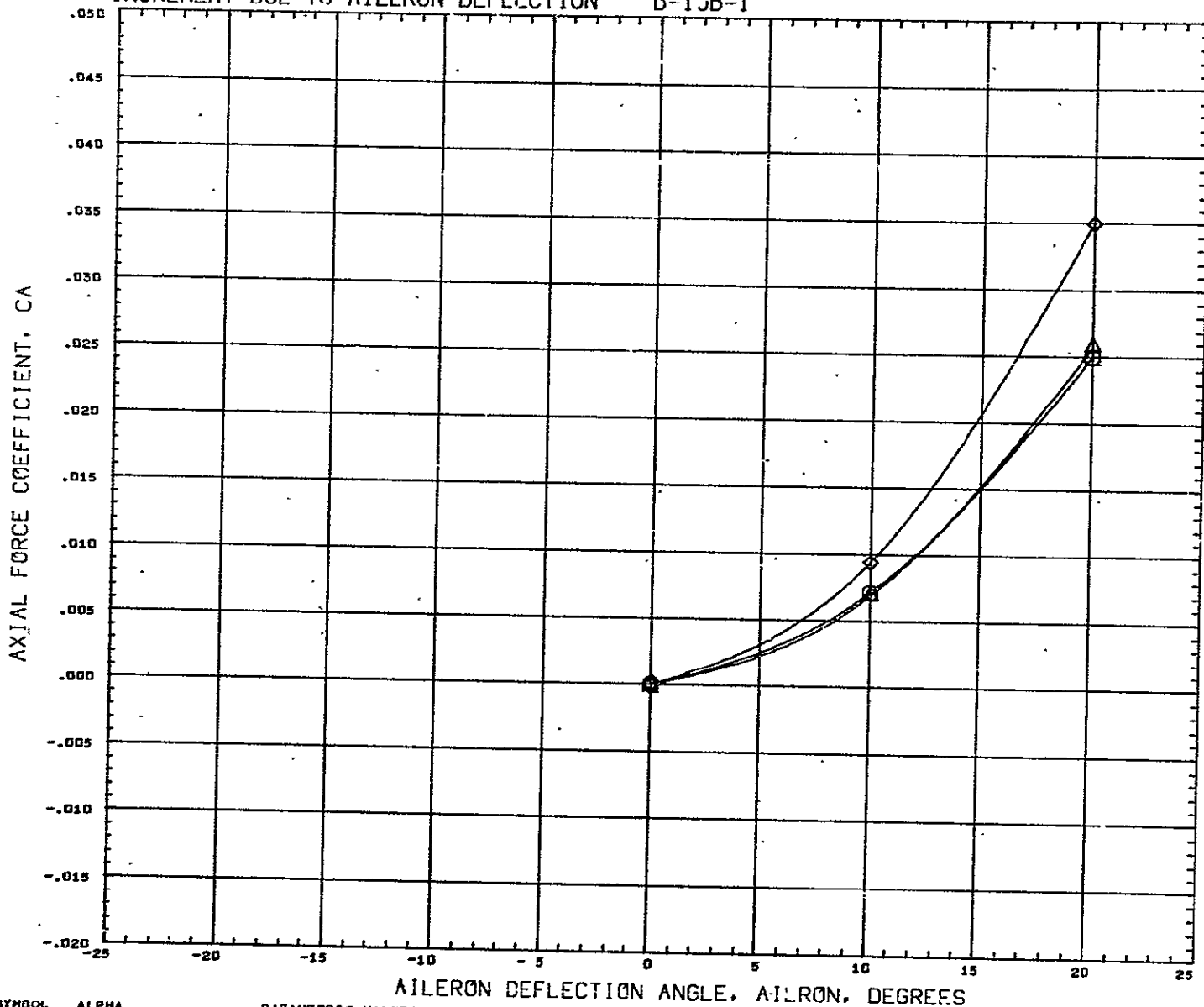
INCREMENT DUE TO CANARD DEFLECTION B-15B-1



PARAMETRIC VALUES									
ALPHA	0.000	BETA	0.000	MACH	0.201	DATA SOURCE			
8.000	RUDDER	0.000	CANON	0.000	JCV030	-10.000	JCV022	0.000	SREF
16.000	ELEVTR	0.000	AILRON	0.000	JCV026	5.000	JCV027	10.000	LREF
					JCV028	15.000	JCV029	20.000	BREF
REFERENCE INFORMATION									
									380.3004
									15.2150
									30.4400
									33.4360
									0.0000
									3.9380
									0.0175

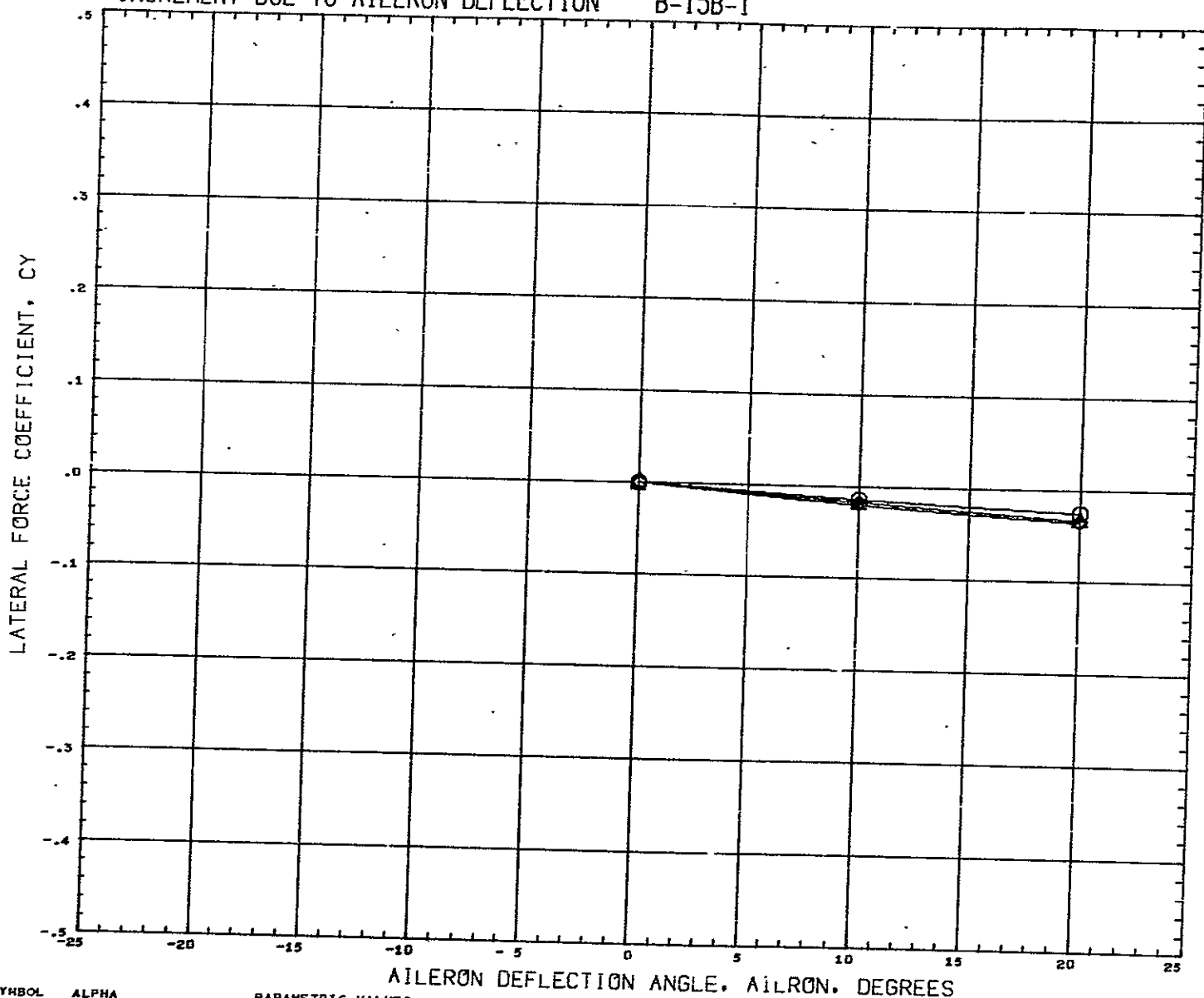
DATA HIST. CODE MVVTI#C

INCREMENT DUE TO AILERON DEFLECTION B-15B-1



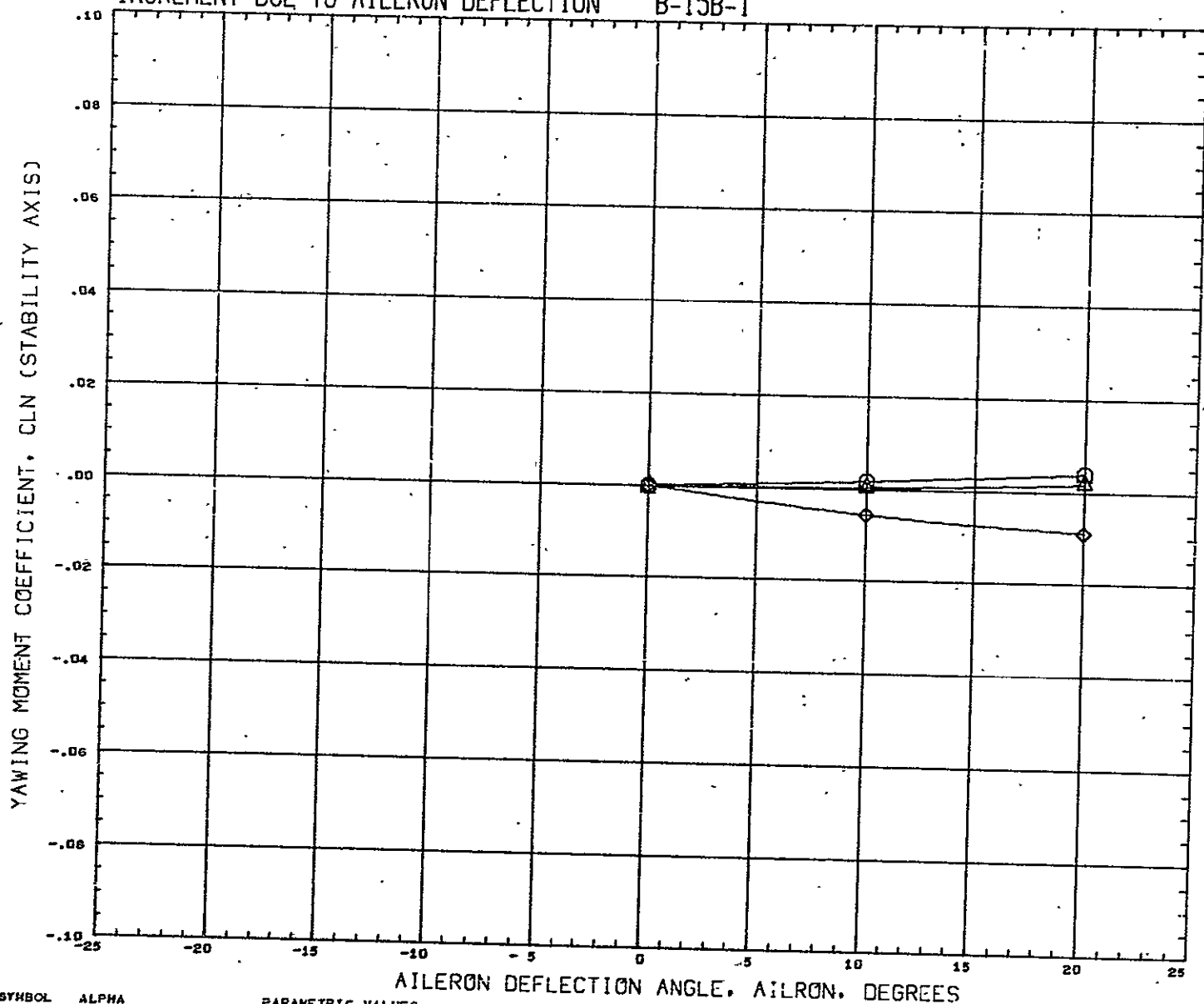
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
○	0.000	MACH	0.201	BETA	0.000	DATASET	AILRON		SREF	380.3004	SQ. IN
△	8.000	RUDDER	0.000	CANVTR	0.000	JCV051	0.000	JCV046	LREF	15.2150	IN.
◇	16.000	CANRON	0.000	ELEVTR	0.300	JCV049	20.000		BREF	30.4400	IN.
		DELO	0.000	DELI	0.000				XMRP	32.4360	IN.
		DERI	0.000	DERO	0.000				YMRP	0.0000	IN.
		DATA HIST. CODE	HVV*ATI#C						ZMRP	3.9380	IN.
									SCALE	0.0175	

INCREMENT DUE TO AILERON DEFLECTION B-15B-1



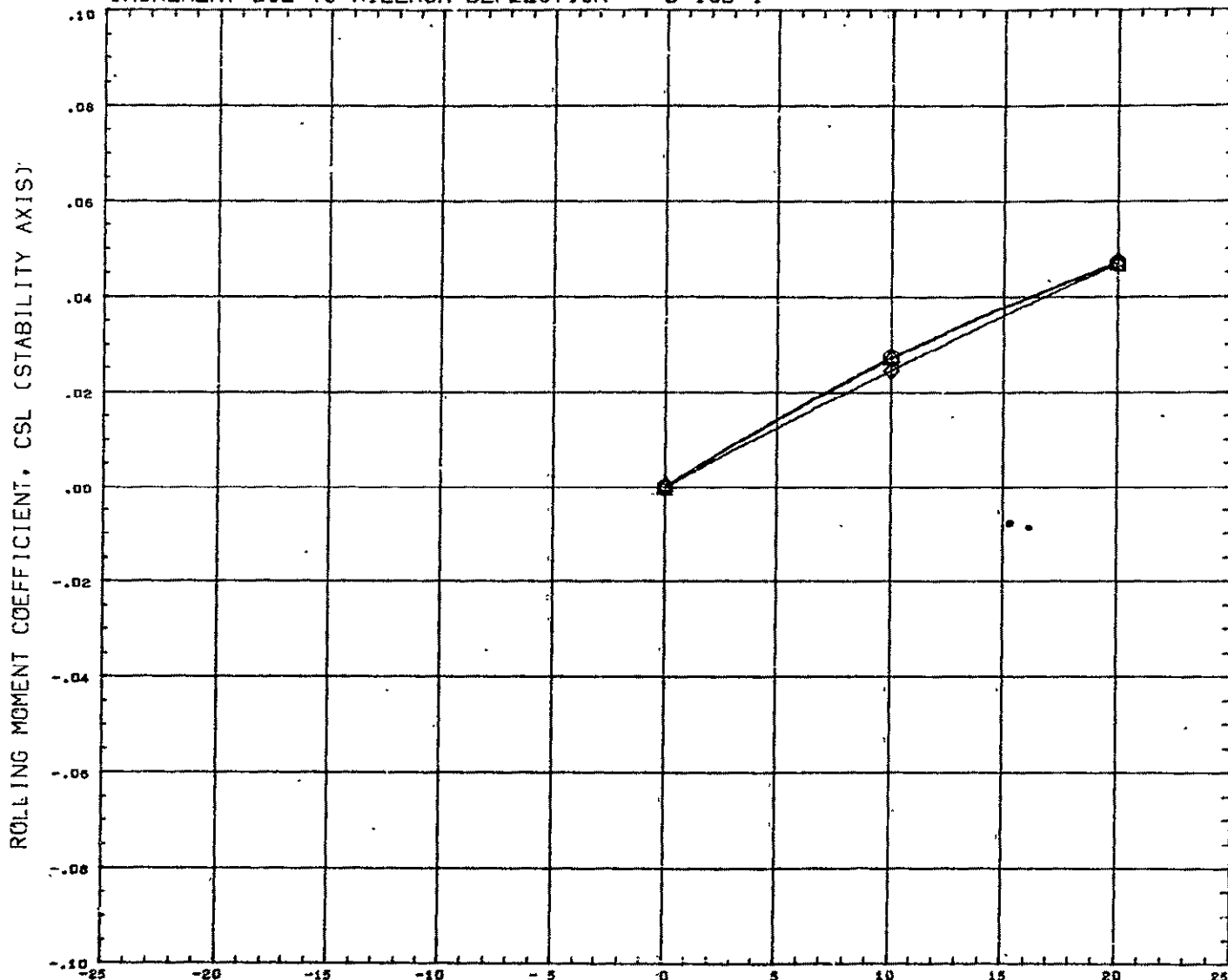
AILERON DEFLECTION ANGLE, AILERON, DEGREES									
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION
○	0.000	MACH	0.201	BETA	0.000	DATASET	AILRON		SREF 380.3004 SQ. IN
△	8.000	RUDDER	0.000	CANVTR	0.000	NCV051	0.000	NCV046 10.000	LREF 15.2150 IN.
◇	16.000	CANRON	0.000	ELEVTR	0.000	NCV049	20.000		BREF 30.4400 IN.
		DELO	0.000	DELI	0.000				XMRP 33.4360 IN.
		DERI	0.000	DERO	0.000				YMRP 0.0000 IN.
		DATA HIST. CODE	MVV*AI*C						ZMRP 3.5380 IN.
									SCALE 0.0175

INCREMENT DUE TO AILERON DEFLECTION B-15B-1



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	HACH 0.201 BETA 0.000	DATA SOURCE	SREF 380.3004 SQ. IN
△	8.000	RUDDER 0.000 CANVTR 0.000	AILRON 0.000	LREF 15.2150 IN.
◇	16.000	CANRON 0.000 ELEVTR 0.000	NCV051 0.000	BREF 30.4400 IN.
		DELO 0.000 DELI 0.000	NCV049 20.000	XMRP 33.4360 IN.
		DERI 0.000 DERO 0.000		YMRP 0.0000 IN.
		DATA HIST. CODE HVV#A13C		ZMRP 3.9380 IN.
				SCALE 0.0175

INCREMENT DUE TO AILERON DEFLECTION B-15B-1

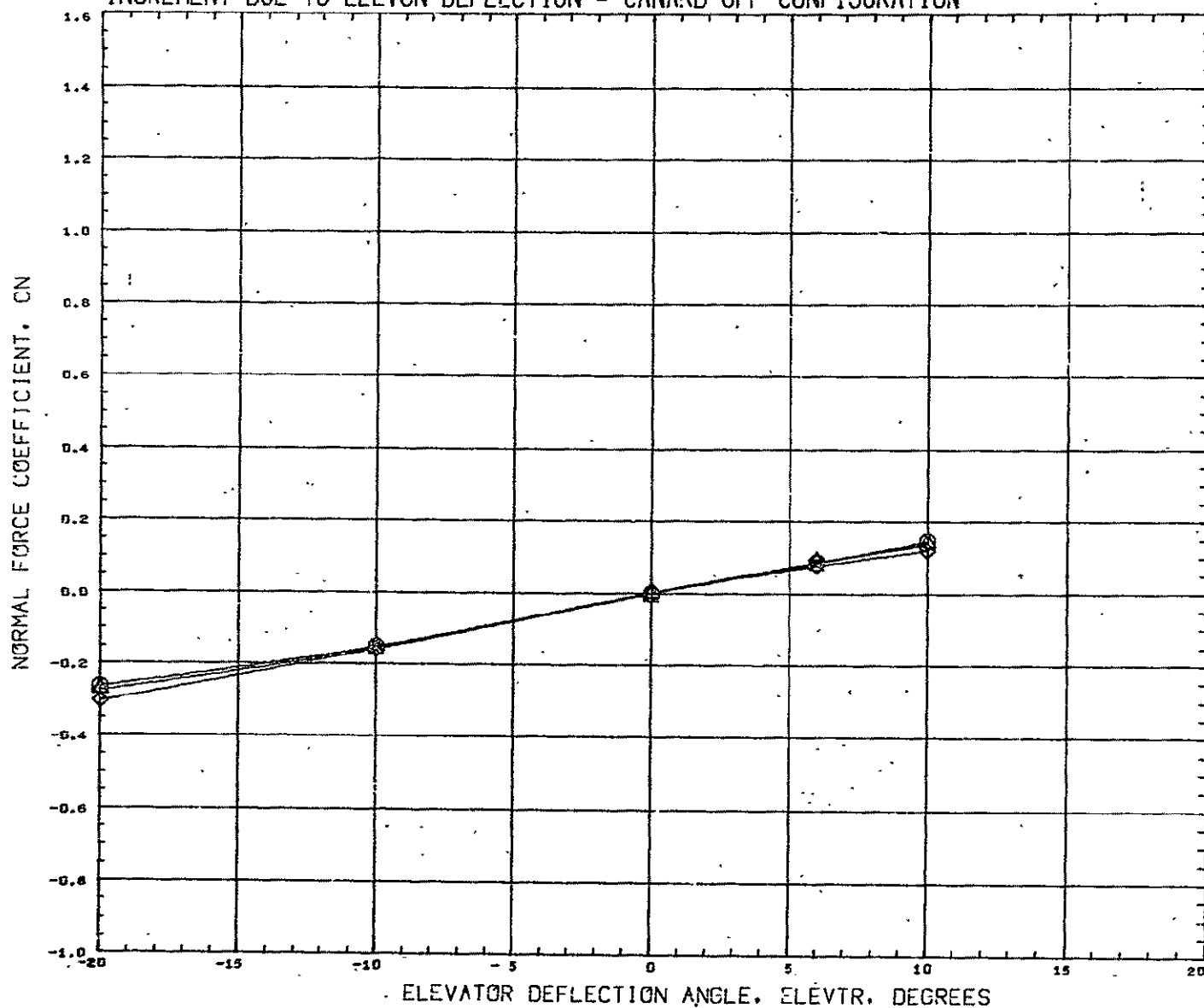


AILERON DEFLECTION ANGLE, AILERON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
◇	0.000	NASH 0.201 BETA 0.000	DATASET AILERON DATASET AILERON	SREF 380.3004 SQ. IN
◇	8.000	RUDDER 0.000 CANVTR 0.000	NCV051 0.000 NCV046 10.000	LREF 15.2150 IN.
◇	16.000	CANON 0.000 ELEVTR 0.000	NCV049 20.000	BREF 30.4400 IN.
		DELO 0.000 DELI 0.000		XHRP 33.4360 IN.
		DERI 0.000 DERO 0.000		YHRP 0.0000 IN.
		DATA HIST. CODE MVV#A1#C		ZHRP 3.9380 IN.
				SCALE 0.0175

GDLST 587-1; B21X1C4V7W16 DE = 0 DA = 0 (NCV051) 24 JUL 71 P:SE 324

INCREMENT DUE TO ELEVON DEFLECTION - CANARD OFF CONFIGURATION



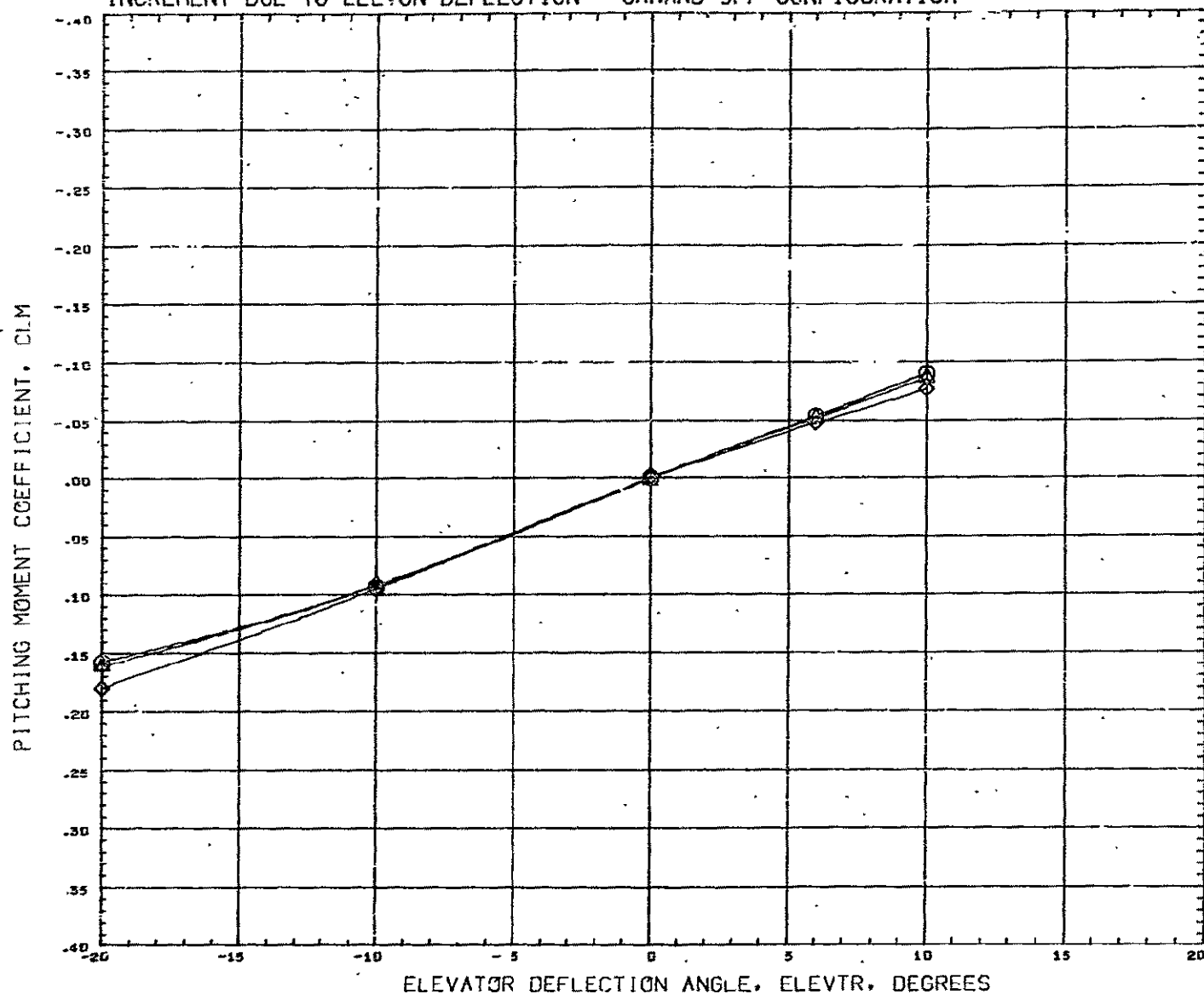
ELEMENT DEFINITION WING ELEMENT DEGREE												
SYMBOL	ALPHA		PARAMETRIC VALUES		DATA SOURCE				REFERENCE INFORMATION			
○	0.000	MACH	0.201	BETA	0.000	DATASET	ELEVTR	DATASET	ELEVTR	SREF	380.3004	SE. IN
△	8.000	RUDDER	0.000	AILRON	0.000	JCV052	- 20.000	JCV055	- 10.000	LREF	15.2150	IN.
◇	16.000					JCV056	0.000	JCV054	6.000	BREF	30.4400	IN.
						JCV053	10.000			XMRP	33.4360	IN.
										YMRP	0.0000	IN.
										ZMRP	3.9380	IN.
										SCALE	0.0175	
		DATA HIST. CODE	MVVTI+C									

DATA HIST. CODE MVVTI+C

GDLST 587-1 B21X1V7W16 DE = -20

(JCV052) 24 JUN 71

INCREMENT DUE TO ELEVON DEFLECTION - CANARD OFF CONFIGURATION



SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION				
○	0.000	<u>MACH</u>	0.201	BETA	0.000	DATASET	ELEVTR	DATASET	ELEVTR	SREF	388.3004	Se. IN
△	8.000	RUDDER	0.000	AILRON	0.000	JCV052	- 20.000	JCV055	- 10.000	LREF	15.2150	IN.
◇	16.000					JCV056	0.000	JCV054	6.000	BREF	30.4400	IN.
						JCV053	10.000			XMRP	33.4360	IN.
										YMRP	0.0000	IN.
										ZMRP	3.9380	IN.
										SCALE	0.0175	

DATA HIST. CODE HVVT1#C

GD1ST 587-1

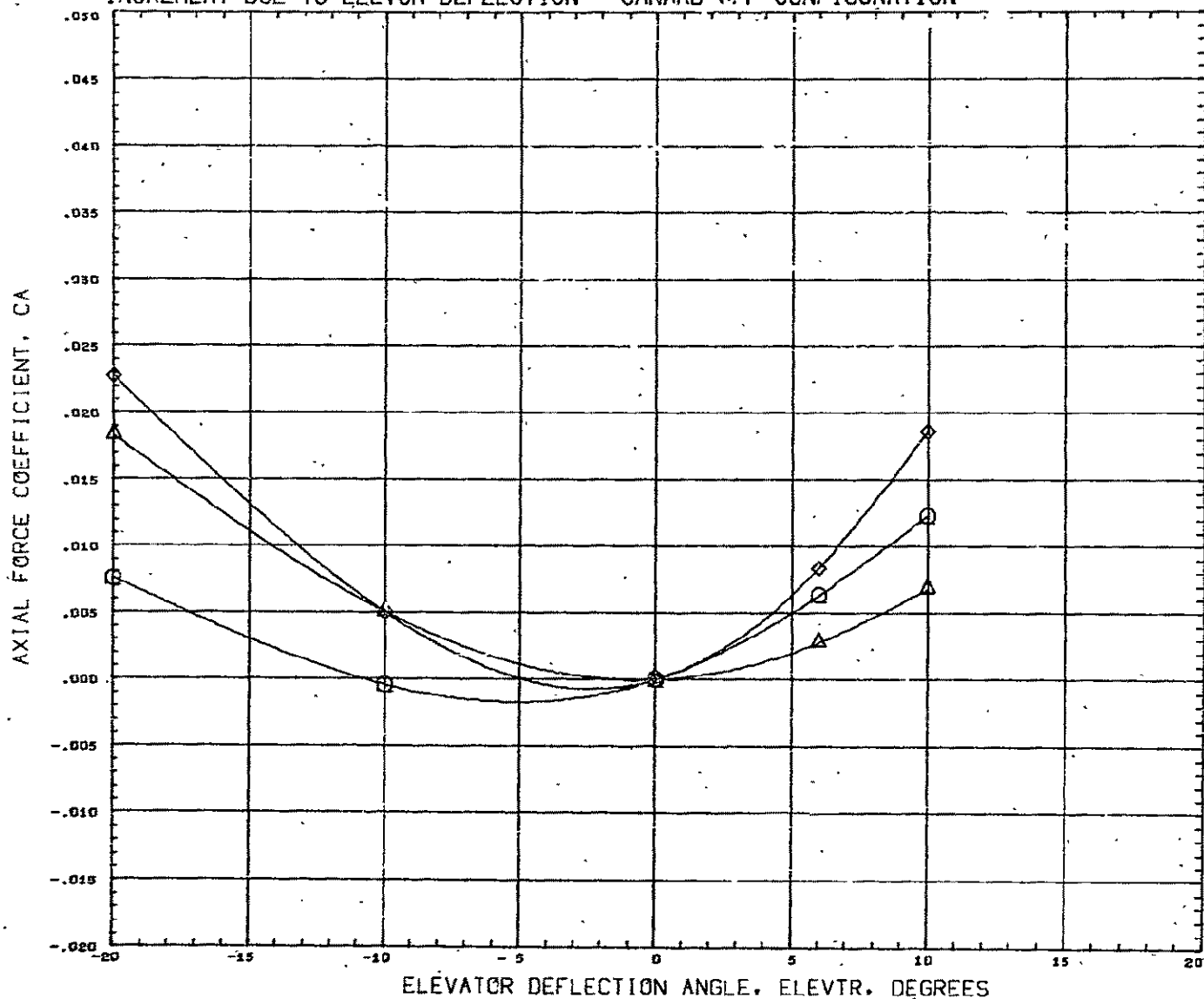
B21X1V7W16

DE = -20

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INCREMENT DUE TO ELEVON DEFLECTION - CANARD OFF CONFIGURATION



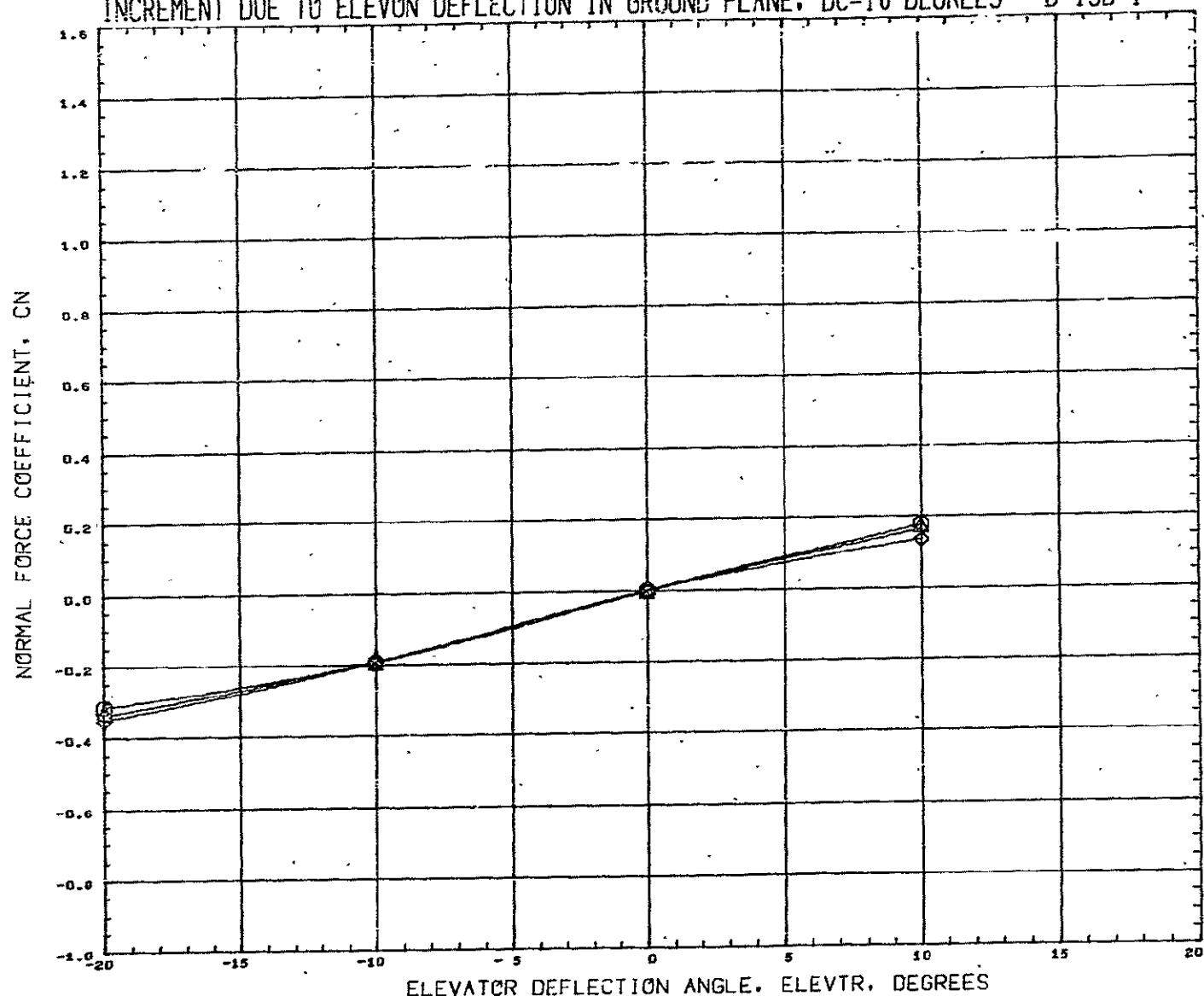
SYMBOL		PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	0.000	<u>MACH</u>	0.201	BETA	0.000	DATASET	ELEVTR		SREF	360.3004	SC. IN	
△	8.000	RUDDER	0.000	AILRON	0.000	JCV052	- 20.000	JCV055	- 10.000	LREF	15.2150	IN.
◇	16.000					JCV056	0.000	JCV054	6.000	BREF	30.4400	IN.
						JCV053	10.000			XMRP	33.4360	IN.
										YMRP	0.0000	IN.
										ZMRP	3.9380	IN.
										SCALE	0.0175	
		DATA HIST. CODE		MVVT1+C								

DATA HIST. CODE MVT1*0

GDLST 587-1 821X1V7W16 DE = -20

(JCV052) 24 JUL 71 PAGE 327

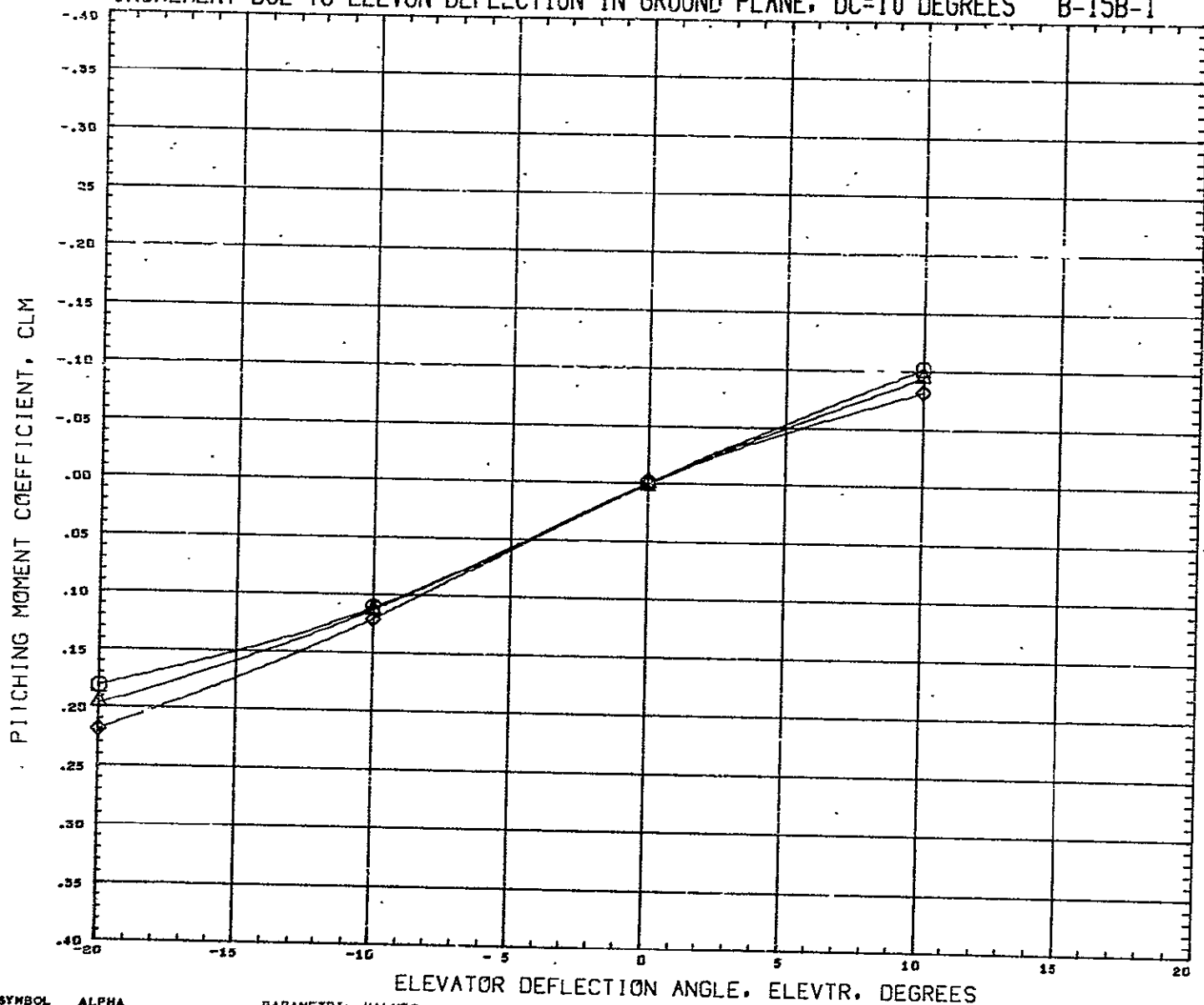
INCREMENT DUE TO ELEVON DEFLECTION IN GROUND PLANE, DC=10 DEGREES B-15B-1



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA		DATASET	ELEVTR	DATASET	ELEVTR	SREF	380.3004	SQ. IN
○	0.000	0.201	0.000		PCVGD1	-20.000	SCVGD1	-10.000	LREF	15.2150	IN.
△	0.000	0.000	10.000		PCVGD1	-20.000	SCVGD1	-10.000	BREF	30.4400	IN.
◇	16.000	0.000	0.000		PCVGD1	0.000	SCVGD1	10.000	XMRP	33.4360	IN.
									YMRP	0.0000	IN.
									ZMRP	3.9380	IN.
									SCALE	0.0175	

DATA HIST. CODE MVV*ANTI*C

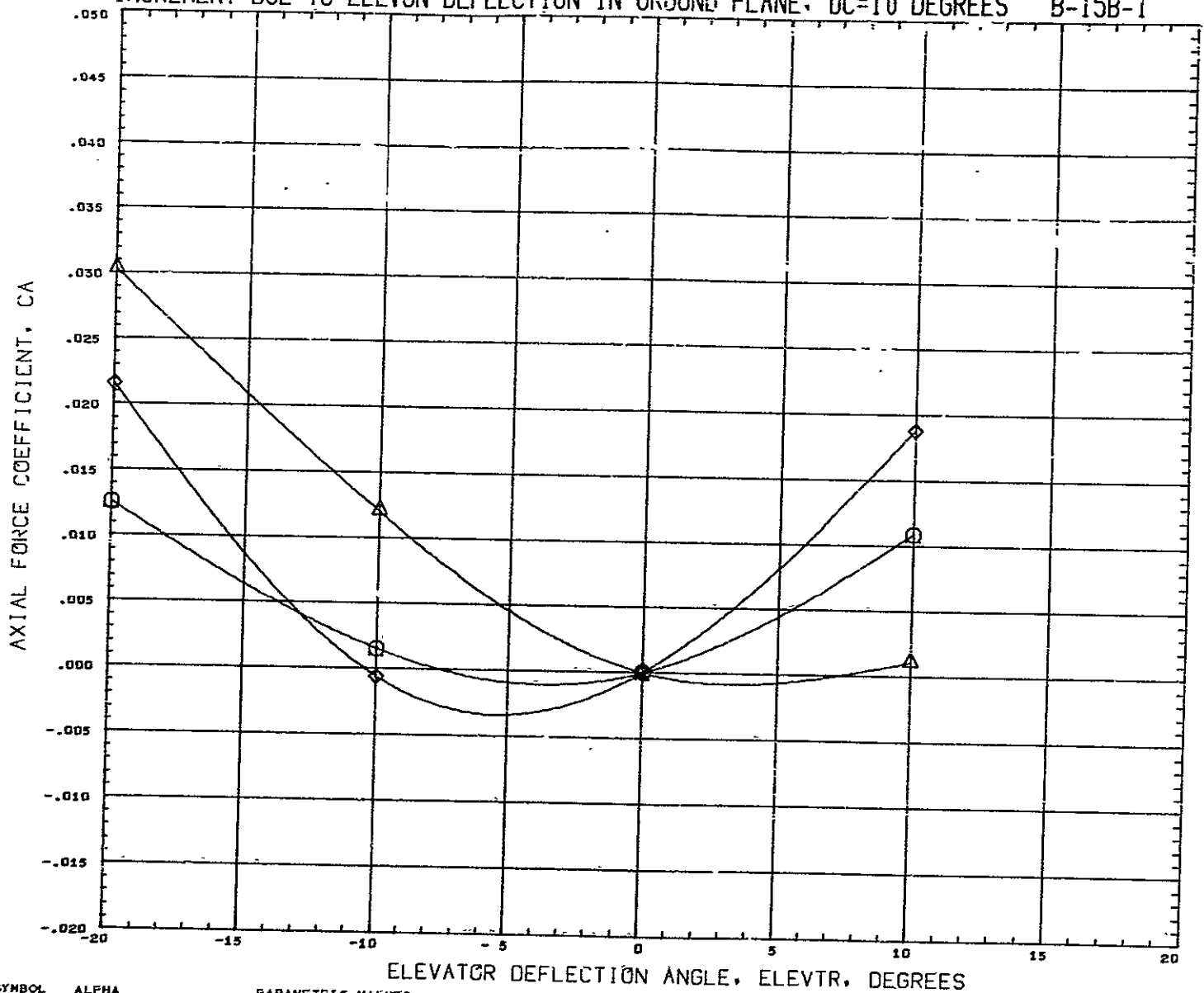
INCREMENT DUE TO ELEVON DEFLECTION IN GROUND PLANE, DC=10 DEGREES B-15B-1



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	0.000	MACH	0.201	BETA	0.000	DATASET	ELEVTR	DATASET	ELEVTR	SREF	380.3004	SQ. IN
△	8.000	RUDDER	0.000	CANVTR	10.000	PCVG01	- 20.000	QCVG01	- 10.000	LREF	15.2150	IN.
◇	16.000	CANRON	0.000	AILRON	0.000	OCVG01	0.000	SCVG01	10.000	BREF	30.4400	IN.
										XHRP	33.4360	IN.
										YHRP	0.0000	IN.
										ZHRP	3.9380	IN.
										SCALE	0.0175	

DATA HIST. CODE MVV#ANTI#C

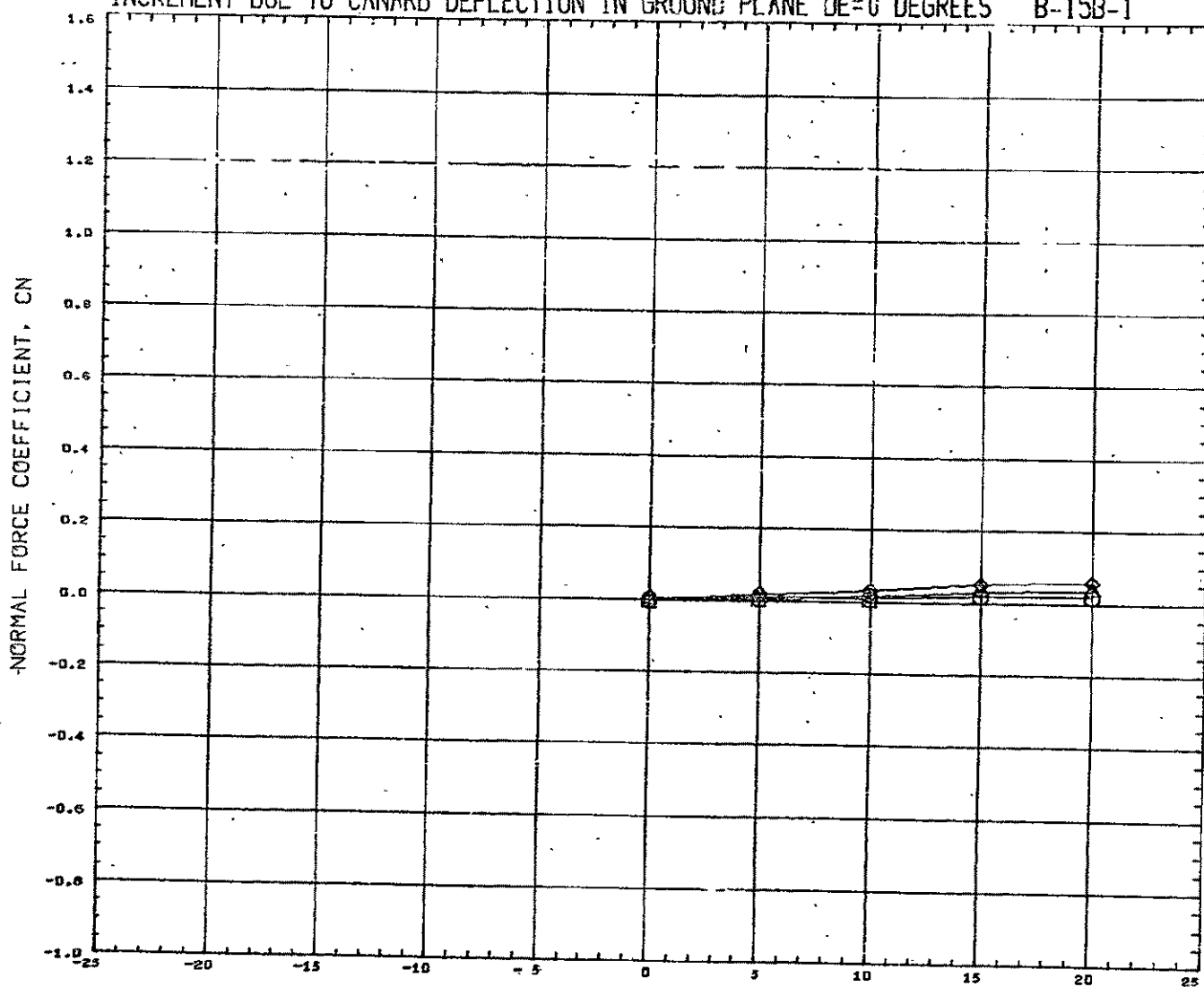
INCREMENT DUE TO ELEVON DEFLECTION IN GROUND PLANE, DC=10 DEGREES B-15B-1



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	MACH 0.201 BFTA 0.000	DATASET ELEVTR	SREF 380.3004 SQ. IN
△	8.000	RUDDER 0.000 CANVTR 10.000	PCVG01 - 20.000 QCVG01 - 10.000	LREF 15.2153 IN.
◇	16.000	CANRON 0.000 AILRON 0.003	OCVG01 0.000 SCVG01 10.000	BREF 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

DATA HIST. CODE MVV*ANTI#C

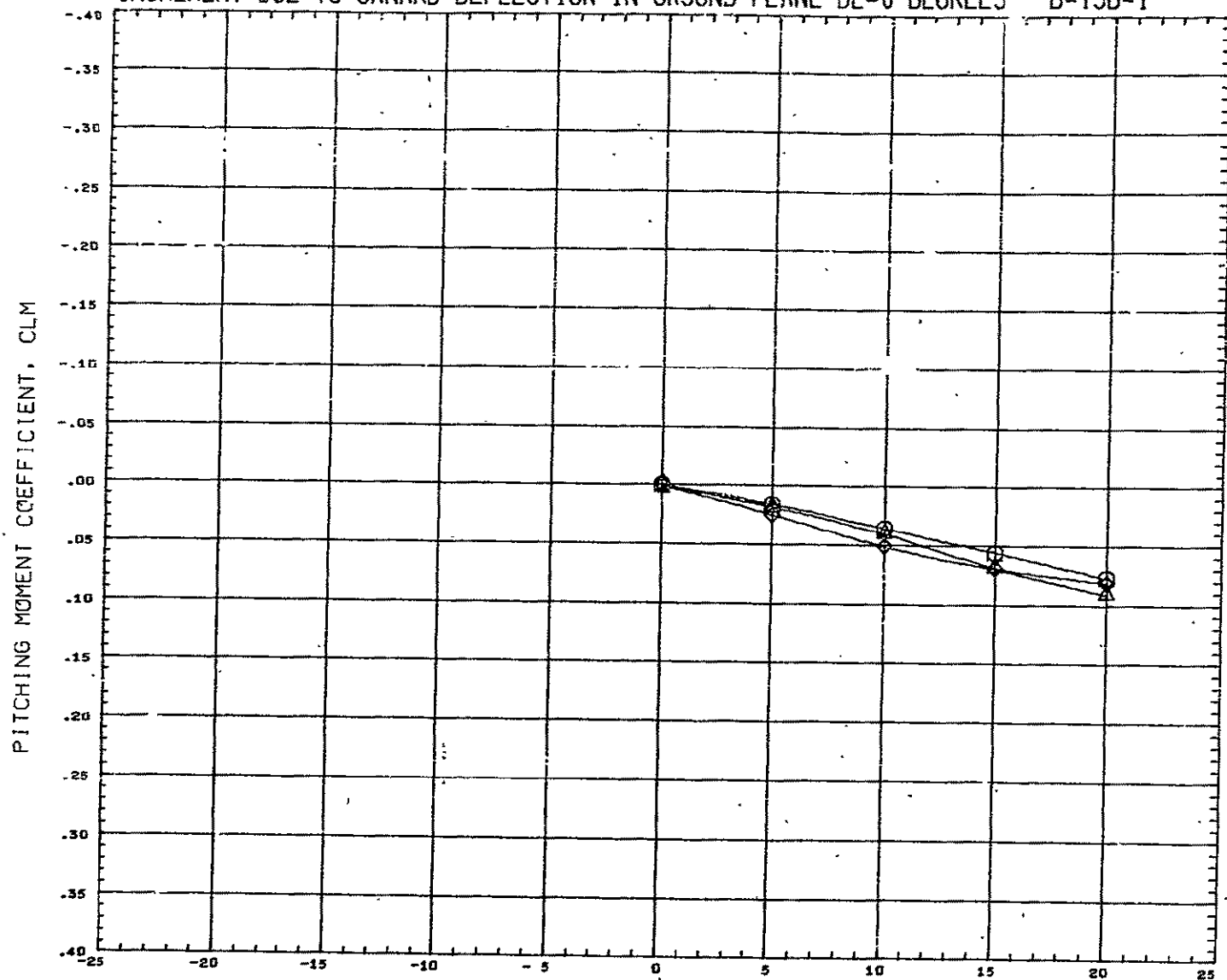
INCREMENT DUE TO CANARD DEFLECTION IN GROUND PLANE DE=0 DEGREES B-15B-1



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		ELEVTR	BETA	0.000	DATASET	CANVTR	DATASET	CANVTR	SREF	380.3004	SQ. IN
○	0.000	MACH	0.201	RUDDER	0.000	MCVG02	0.000	MCVG03	5.000	15.2150	IN.
△	8.000	CANRON	0.000	AILRON	0.000	UCVG01	10.000	MCVG05	15.000	30.4400	IN.
◇	16.000				0.000	MCVG04	20.000			33.4360	IN.
										YMRP	0.0000
										ZMRP	3.9380
										SCALE	0.0175

DATA HIST. CODE . MVTI0C

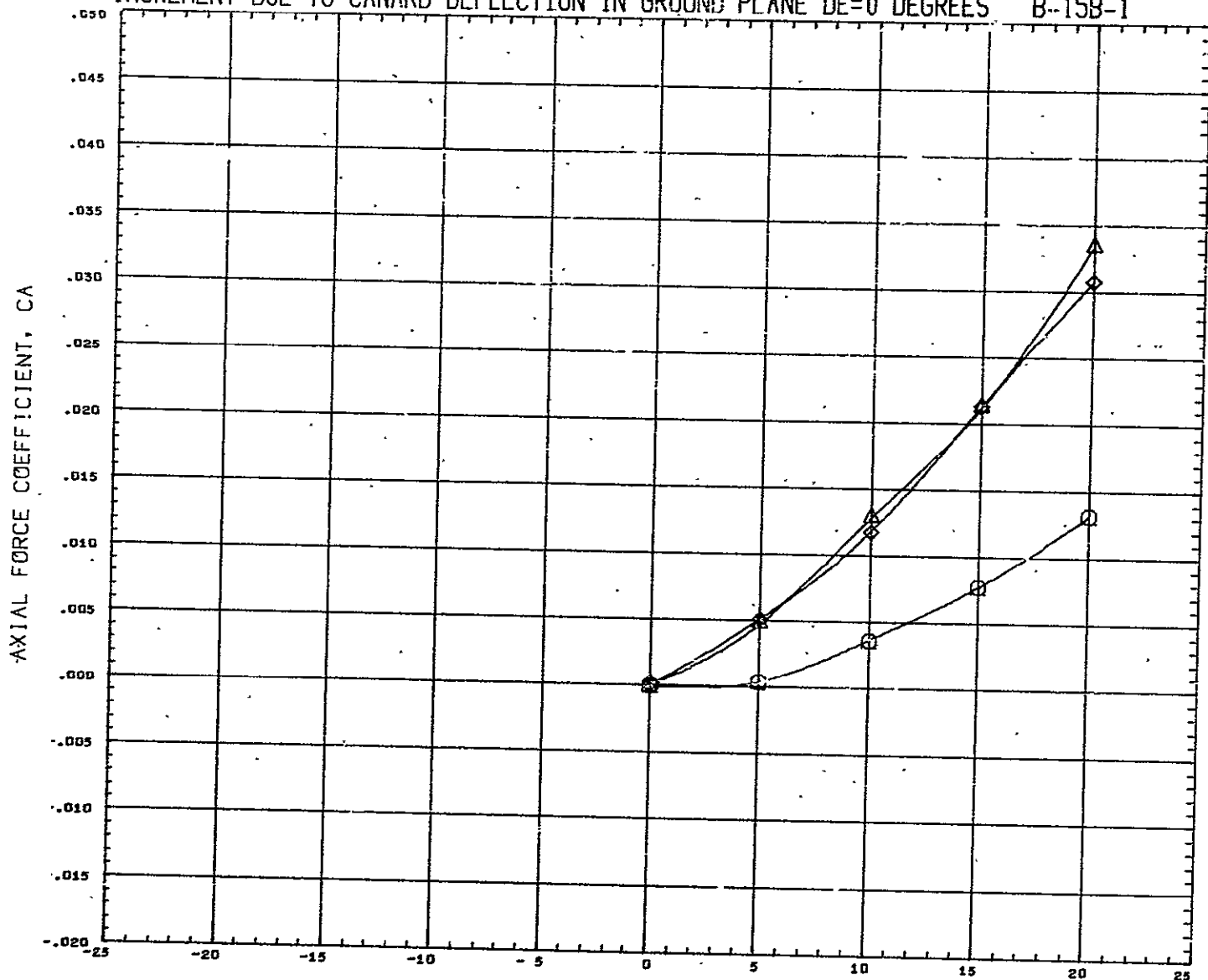
INCREMENT DUE TO CANARD DEFLECTION IN GROUND PLANE DE=0 DEGREES B-15B-1



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	ELEVTR	BETA		DATASET	CANVTR	DATASET	CANVTR	SREF	380.3004	SQ. IN
○	0.000	0.000	0.000		MCVG02	0.000	MCVG03	5.000	LREF	15.2138	IN.
△	6.000	0.201	0.000		UCVG01	10.000	MCVG05	15.000	BREF	30.4400	IN.
◇	16.000	0.000	0.000		MCVG04	20.000			XMRP	33.4360	IN.
									YMRP	0.0000	IN.
									ZMRP	3.9380	IN.
									SCALE	0.0175	

DATA HIST. CODE MVTI#C

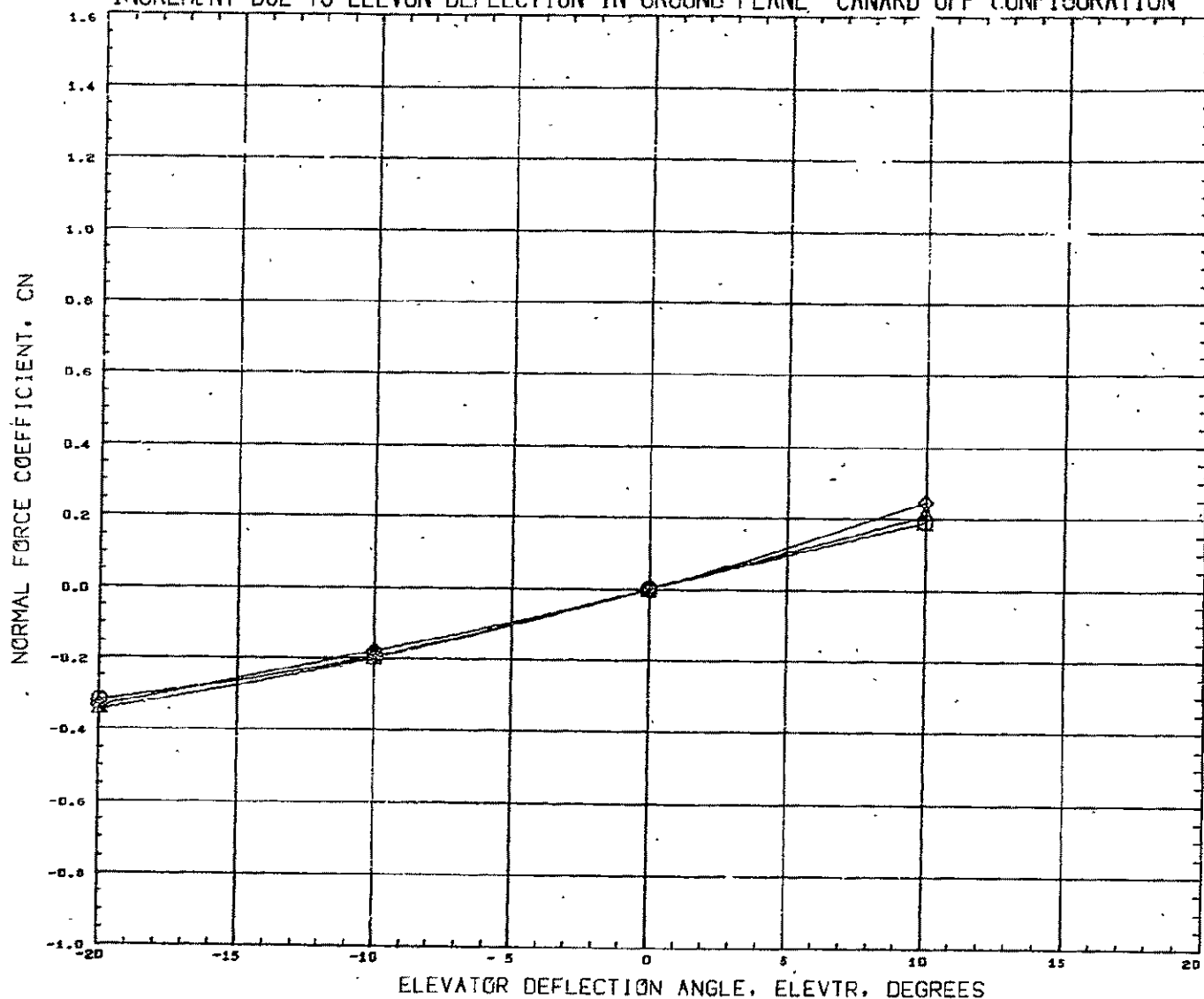
INCREMENT DUE TO CANARD DEFLECTION IN GROUND PLANE DE=0 DEGREES B-15B-1



SYMBOL	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
	ALPHA				DATASET	CANVTR	DATASET	CANVTR	SREF	SQ. IN
○	0.000	ELEVTR	0.000	BETA	0.000				380.3004	
△	0.000	HACH	0.201	RUDDER	0.000	MCVG02	0.000	MCVG03	15.2130	IN.
◇	16.000	CANRON	0.000	AILRON	0.060	UCVG01	10.000	MCVG05	30.4400	IN.
						MCVG04	20.000		33.4360	IN.
									YHRP	0.0000
									ZHRP	3.9380
									SCALE	0.0175

DATA HIST. CODE MVVTIC

INCREMENT DUE TO ELEVON DEFLECTION IN GROUND PLANE CANARD OFF CONFIGURATION



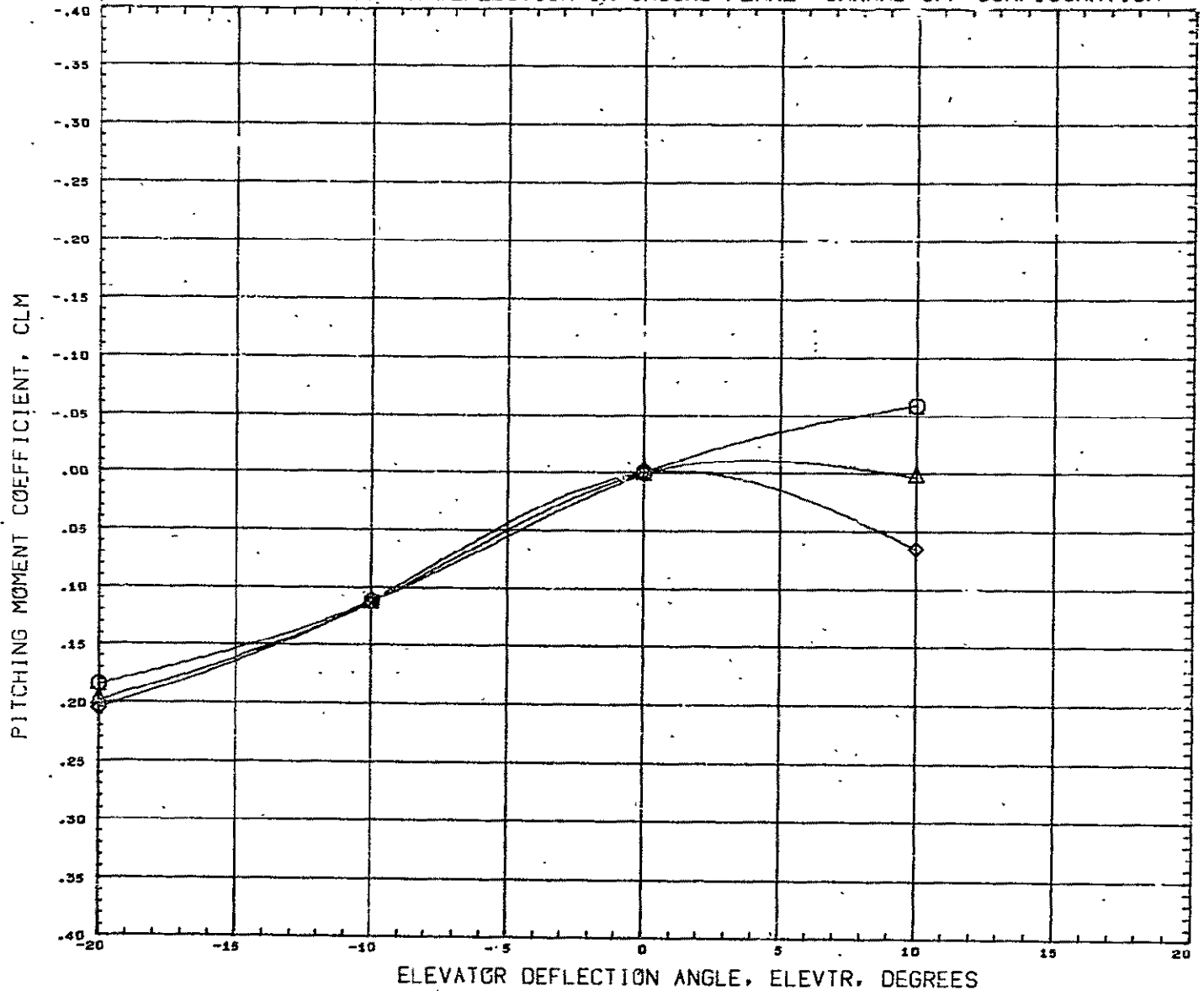
ELEVATION, DATASET ANGLE, ELEVTR, DEGREES												
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	0.000	MACH	0.201	BETA	0.000	DATASET	ELEVTR	DATASET	ELEVTR	SREF	380.3004	69. IN
△	8.000	RUDDER	0.000	AILRON	0.000	QCVG06	- 20.000	PCVG06	- 10.000	LREF	15.2150	IN.
◇	16.000	CANRON	0.000	AILRON	0.000	QCVG06	0.000	SCVG06	10.000	BREF	30.4400	IN.
										XWRP	33.4360	IN.
										YNRP	0.0000	IN.
										ZWRP	3.9380	IN.
										SCALE	0.0175	
		DATA HIST. CODE	MYVWAMTTC									

DATA INST. CODE MYVW4INTI#C

SDLST 587-1 B21X1V7W16G3 + GP

(QCVG06) 24 JUL 71 PAGE 334

INCREMENT DUE TO ELEVON DEFLECTION IN GROUND PLANE CANARD OFF CONFIGURATION



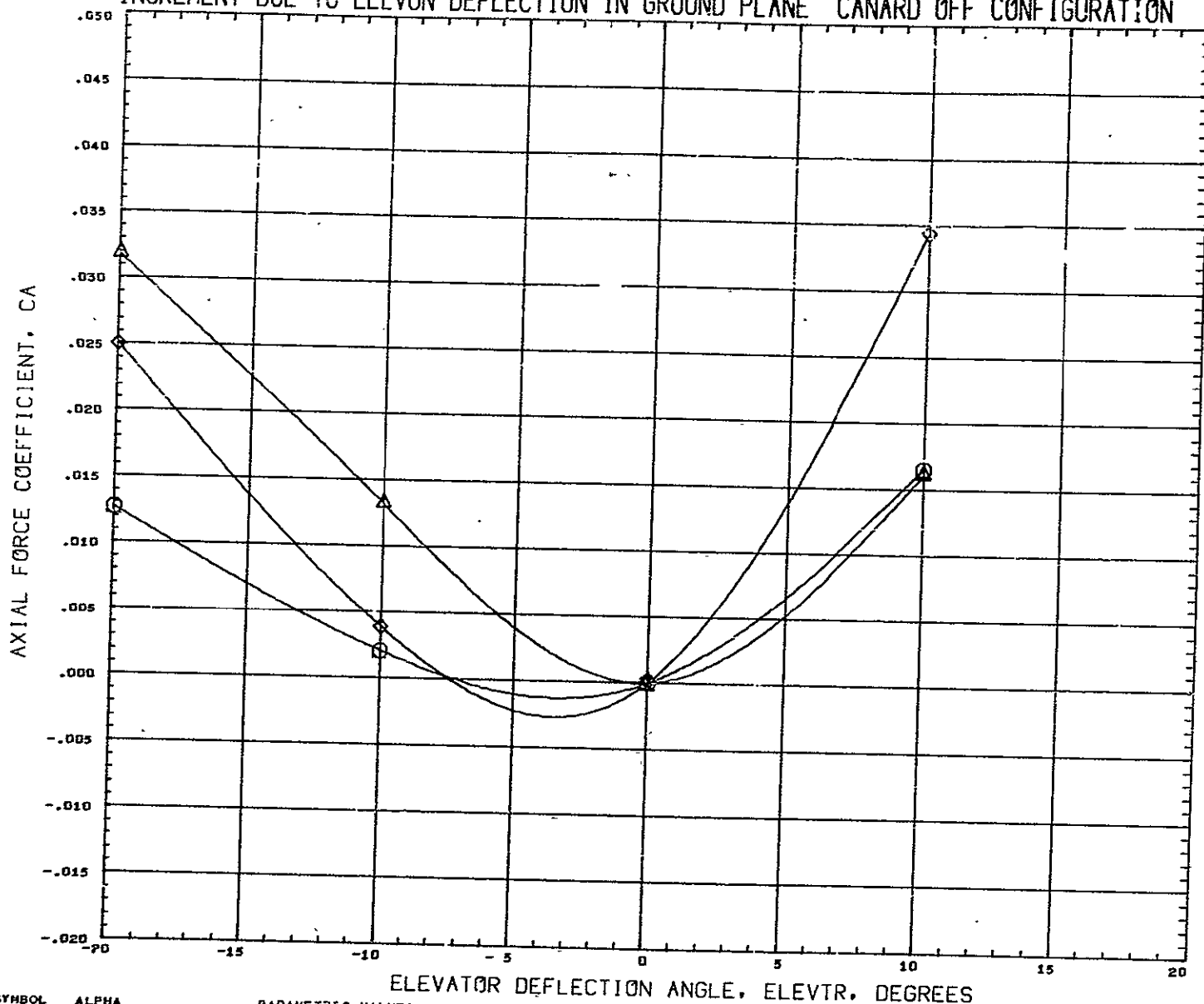
SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	MACH 0.201 BETA 0.000	DATASET ELEVTR DATASET ELEVTR	SREF 380.3004 SQ. IN
△	8.000	RUDDER 0.000 AILRON 0.000	OCV606 - 20.000 PCV606 - 10.000	LREF 15.2150 IN.
◇	16.000	CANRON 0.000 AILRON 0.000	OCV606 0.000 SCV606 10.000	BREF 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9360 IN.
				SCALE 0.0175

DATA HIST. CODE MVV*ANTI+C

SDLST 587-1 B21X1V7W16G3 + GP

(OCV606) 24 JUL 71 PAGE 335

INCREMENT DUE TO ELEVON DEFLECTION IN GROUND PLANE CANARD OFF CONFIGURATION



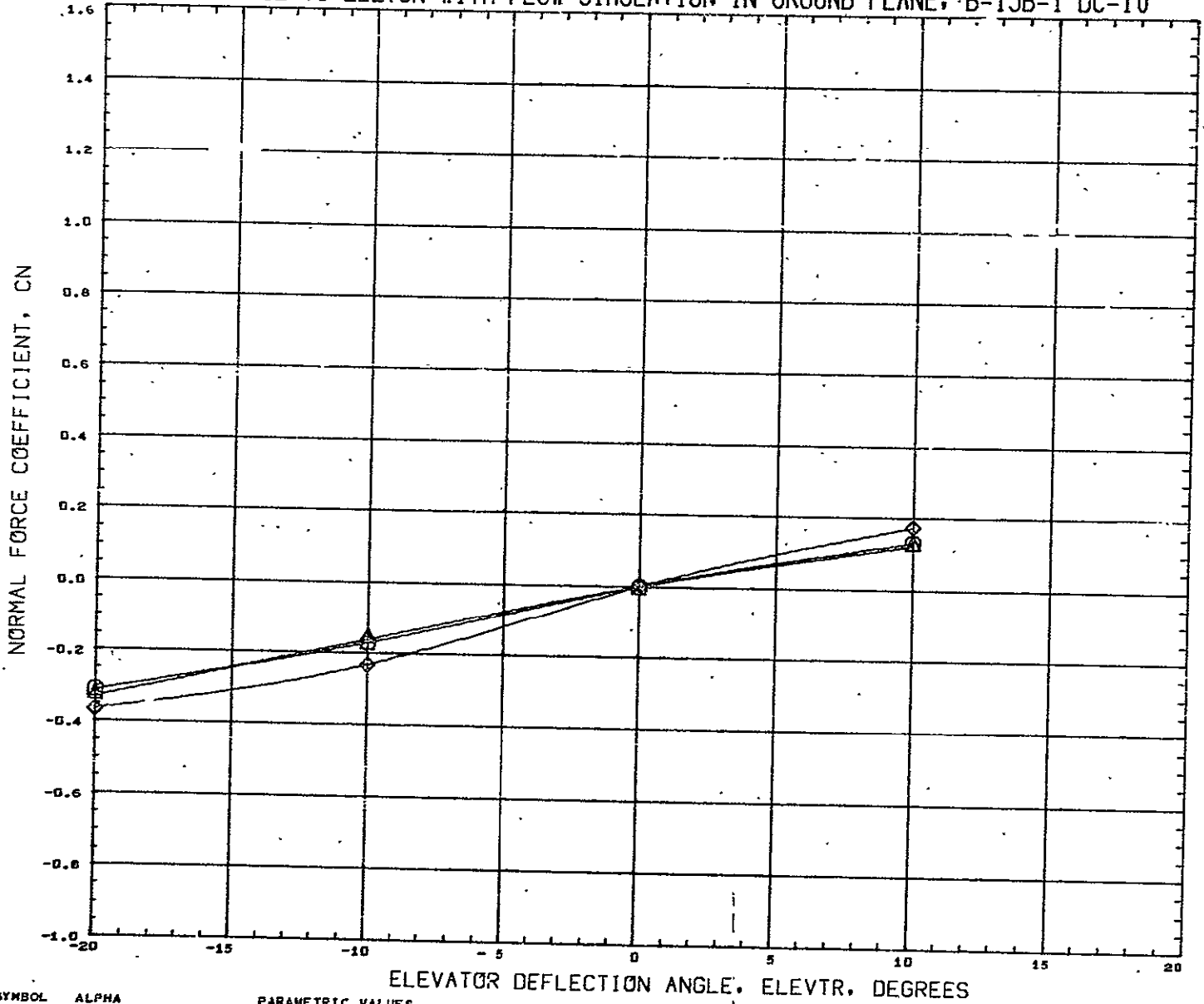
SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
○	0.000	8.000	0.201	BETA	0.000	0.000	0.000	0.000	SREF	380.3004	SQ. IN
◇	8.000	RUDDER	0.000	AILRON	0.000	QCVG06	- 20.000	PCVG06	LREF	15.2150	IN.
△	16.000	CANRON	0.000	AILRON	0.000	OCVG06	0.000	SCVG06	BREF	30.4400	IN.
									XMRF	33.4360	IN.
									YMRF	0.0000	IN.
									ZMRF	3.9380	IN.
									SCALE	0.0175	

DATA HIST. CODE MVV#ANTI#C

GCLST 587-1 B21X1V7W16G3 + GP

(QCVG06) .24 JUL 71 PAGE 336

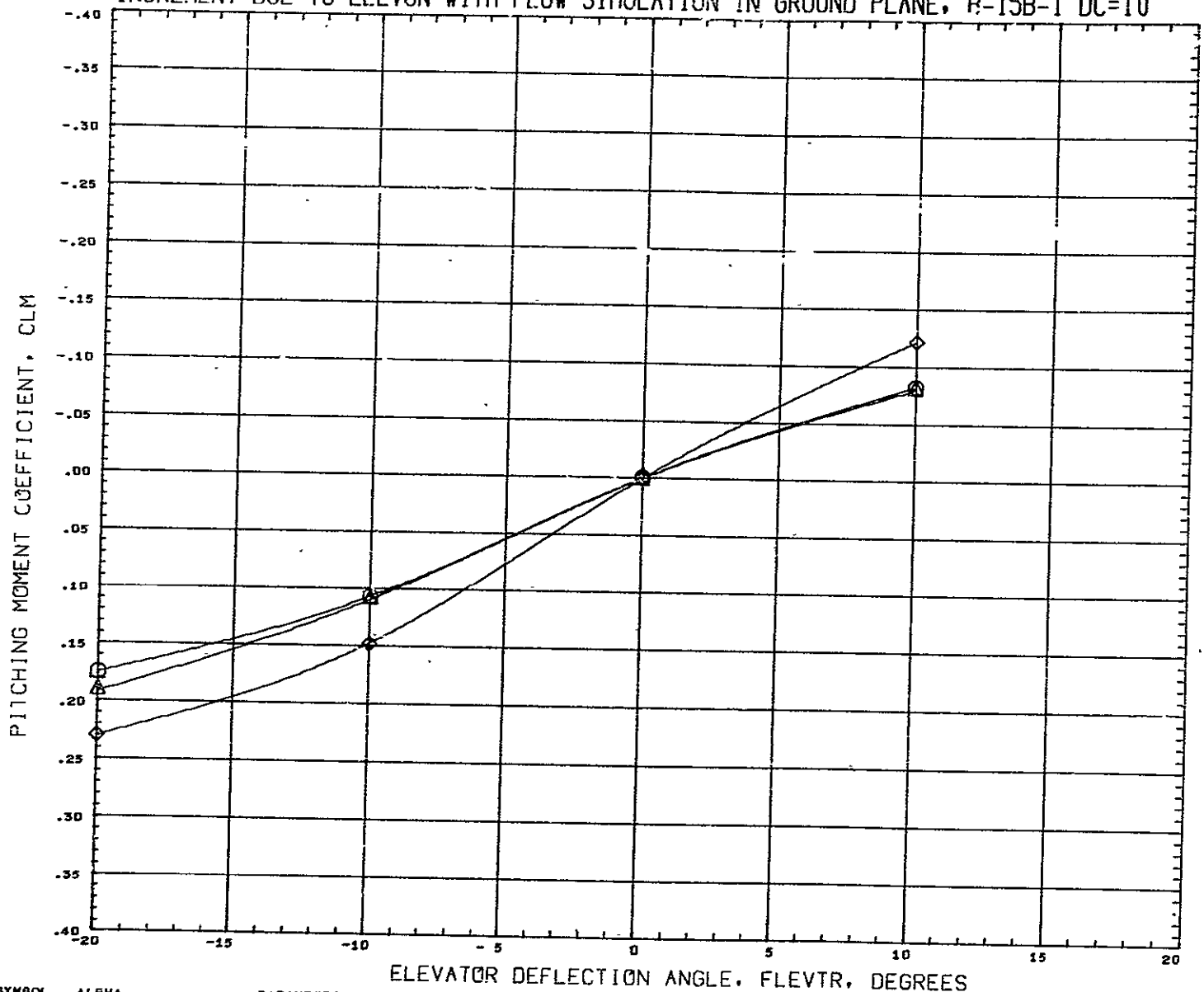
INCREMENT DUE TO ELEVON WITH FLOW SIMULATION IN GROUND PLANE, B-15B-1 DC=10



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	FLOW 0.620 BETA 0.000	DATASET ELEVTR	SREF 380.3004 SQ. IN
△	8.000	MACH 0.201 RUDDER 0.000	MCVGF5 - 20.000 MCVGF4 - 10.000	LREF 15.215C IN.
◇	16.000	ATLON 0.000 CANVTR 10.001	NCVGF6 0.000 NCVGF3 10.000	BREF 30.4400 IN.
		CANRON 0.000		XMRP 55.4350 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

DATA HIST. CODE MVV*ATI*C

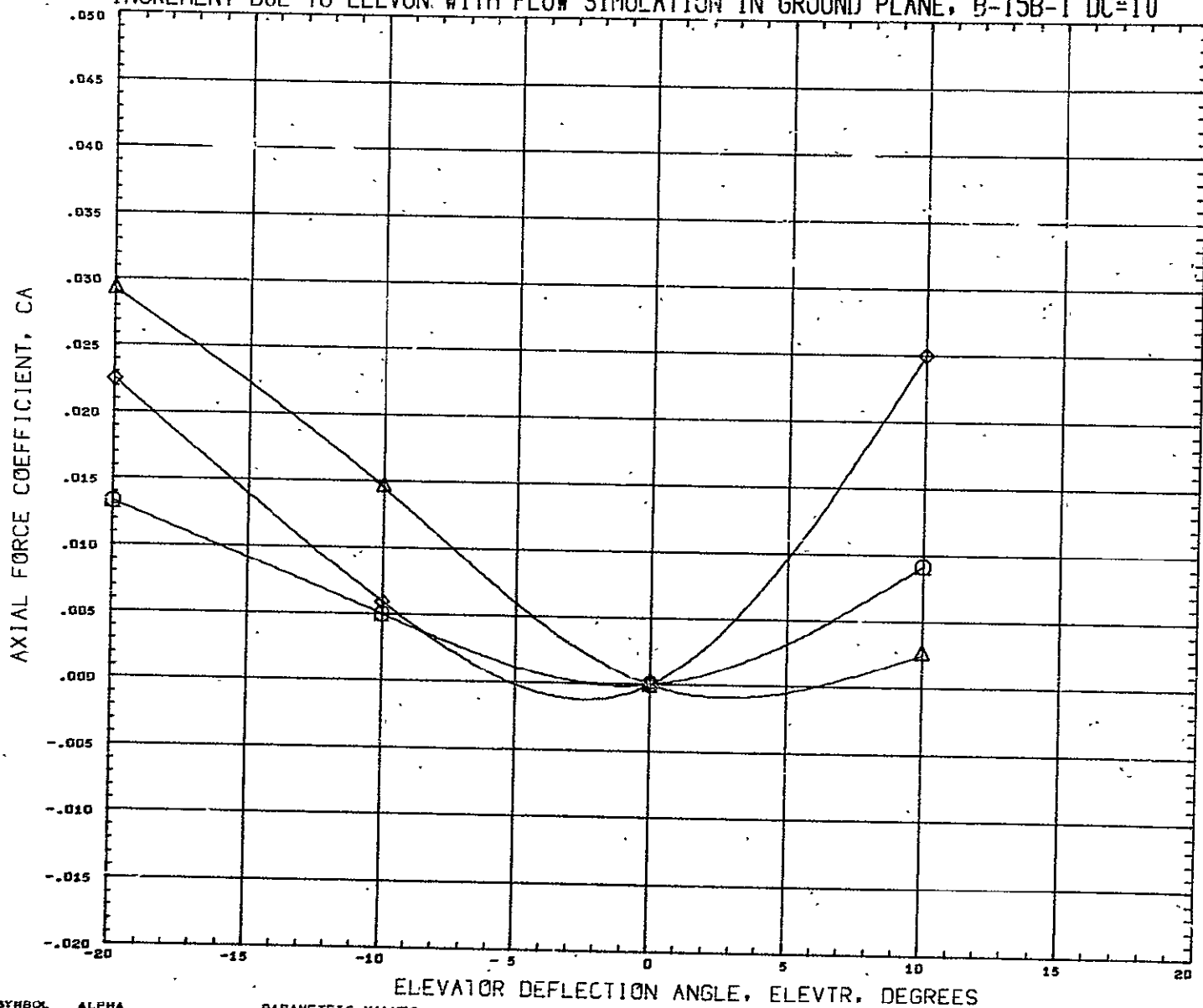
INCREMENT DUE TO ELEVON WITH FLOW SIMULATION IN GROUND PLANE, R-15B-1 DC=10



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	0.620	DATA SET	SREF 300.3004
△	0.000	0.201	ELEVTR	LREF 15.2150
◇	16.000	0.000	DATA SET	BREF 30.4400
			MCVGF5 - 20.000	XMRP 33.4360
			MCVGF6 0.000	YMRP 0.0000
				ZMRP 3.9390
				SCALE 0.0175

DATA HIST. CODE MVV%ATI#C

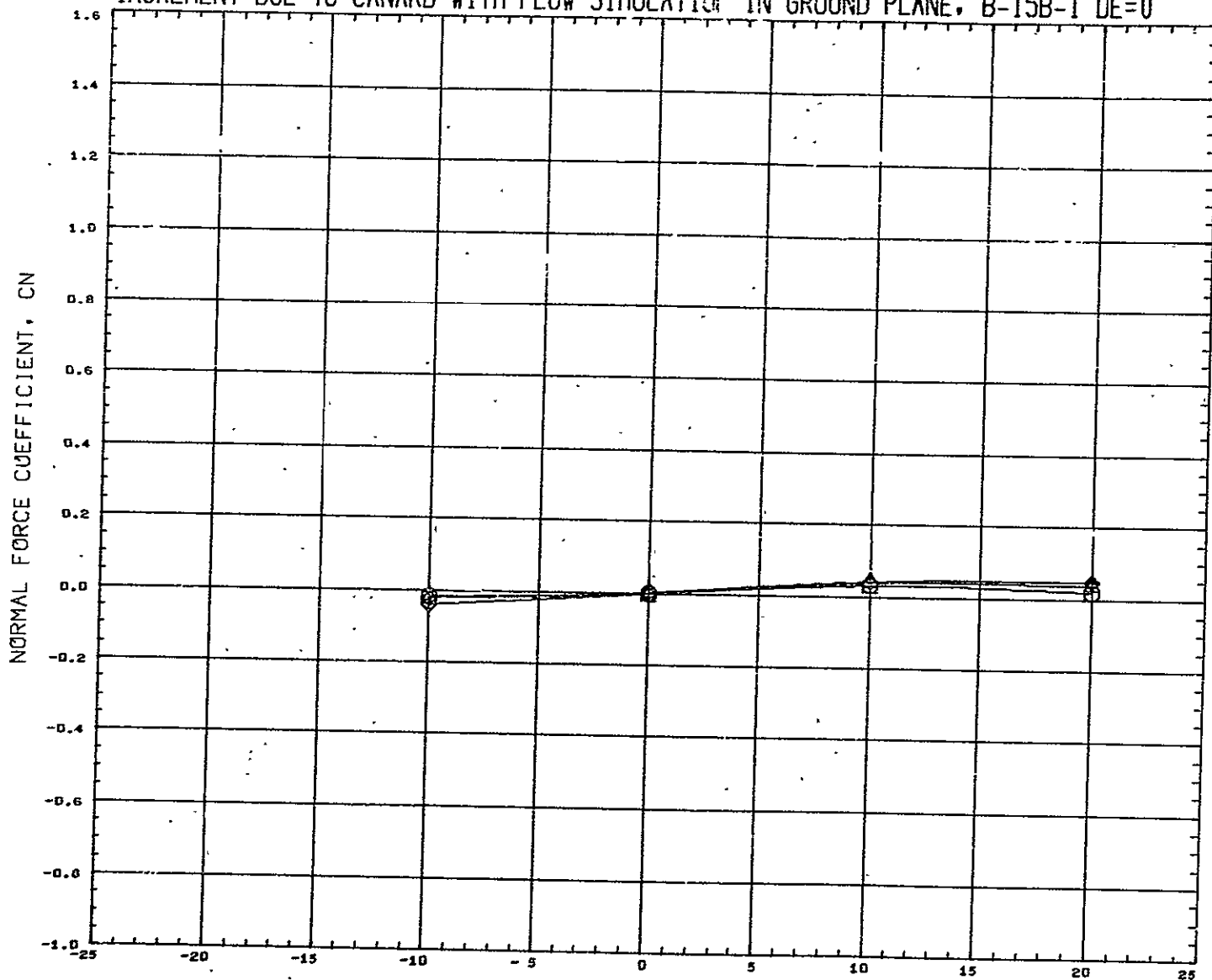
INCREMENT DUE TO ELEVON WITH FLOW SIMULATION IN GROUND PLANE, B-15B-1 DC=10



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		FLOW	BETA	0.000	0.000	MCVGF5	MCVGF4	MCVGF3	MCVGF6	SREF	380.3624	SG. IN	
○	0.000	MACH	0.201	RUDDER	0.000	MCVGF5	- 20.000	MCVGF4	- 10.000	LREF	15.2150	IN.	
△	8.000	AILRON	0.000	CANVTR	10.000	MCVGF6	0.000	MCVGF3	10.000	BREF	30.4400	IN.	
◇	16.000	CANRON	0.000							XMRP	33.4360	IN.	
										YMRP	0.0000	IN.	
										ZMRP	3.9380	IN.	
										SCALE	0.0175		

DATA HIST. CODE MUV*ATI#C

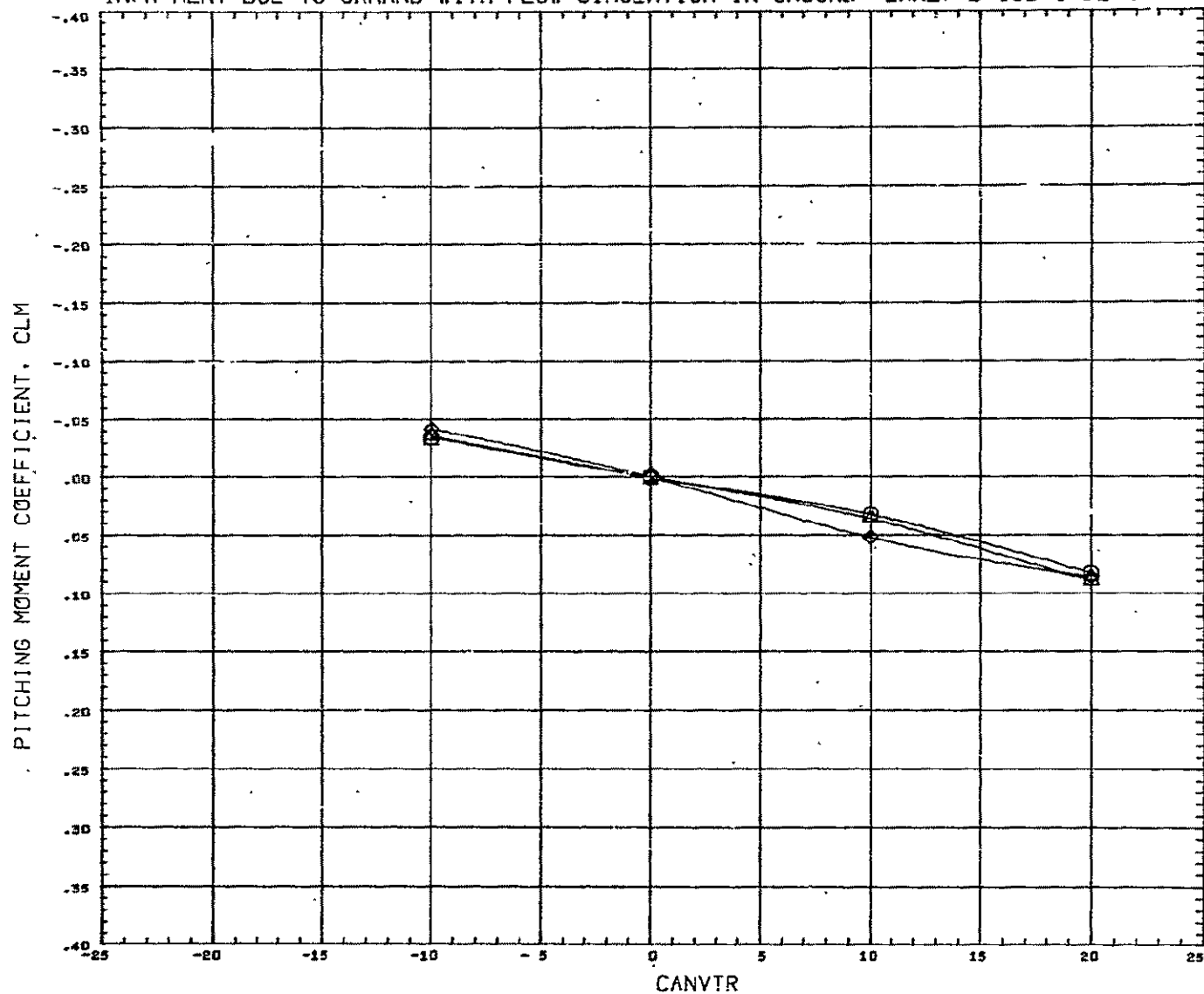
INCREMENT DUE TO CANARD WITH FLOW SIMULATION IN GROUND PLANE, B-15B-1 DE=0



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
○	0.000	FLOW	0.620	BETA	0.000	DATASET	CANVTR	DATASET	CANVTR	SREF	380.3054	SQ.	IN
△	8.000	MACH	0.201	RUDDER	0.000	MCVGF2	-10.000	MCVGF1	0.000	LREF	15.2150	IN.	
◇	16.000	ELEVTR	0.000	AILRON	0.000	MCVGF6	10.000	MCVGF9	20.000	BREF	30.4400	IN.	
		CANRON	0.000							XMRP	33.4360	IN.	
										YMRP	0.0000	IN.	
										ZMRP	3.9380	IN.	
										SCALE	0.0175		

DATA HIST. CODE MVV*ATI*#C

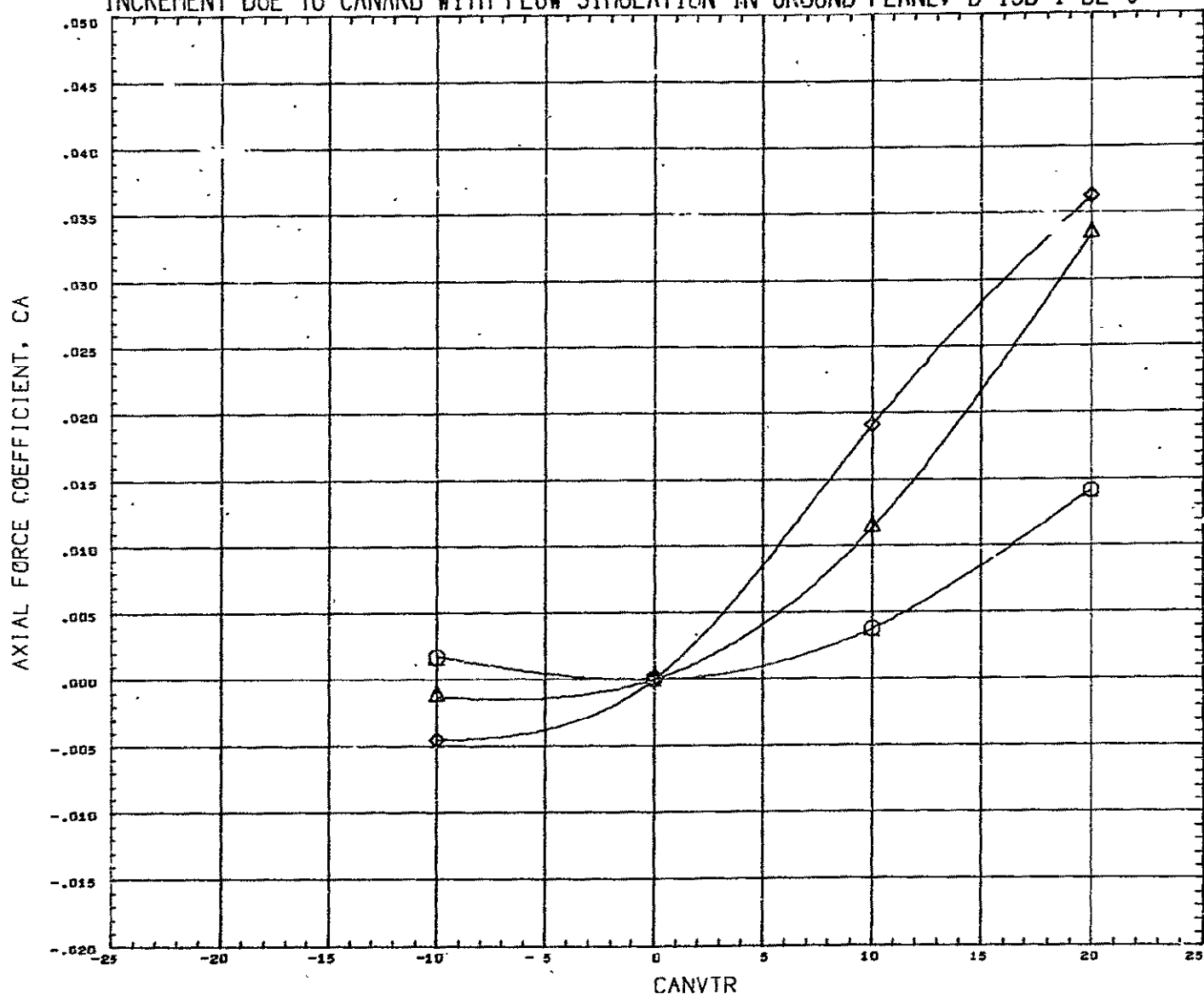
INCREMENT DUE TO CANARD WITH FLOW SIMULATION IN GROUND PLANE, B-15B-1 DE=0



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	0.620 BETA	0.000 DATASET CANVTR	SREF 380.3001 SR. IN
△	8.000	0.201 RUDDER	0.000 MCVGF2 - 10.000	LREF 15.2150 IN.
◇	16.000	0.000 AILRON	0.000 MCVGF6 10.000	BREF 30.4400 IN.
		0.000 CANRON		XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

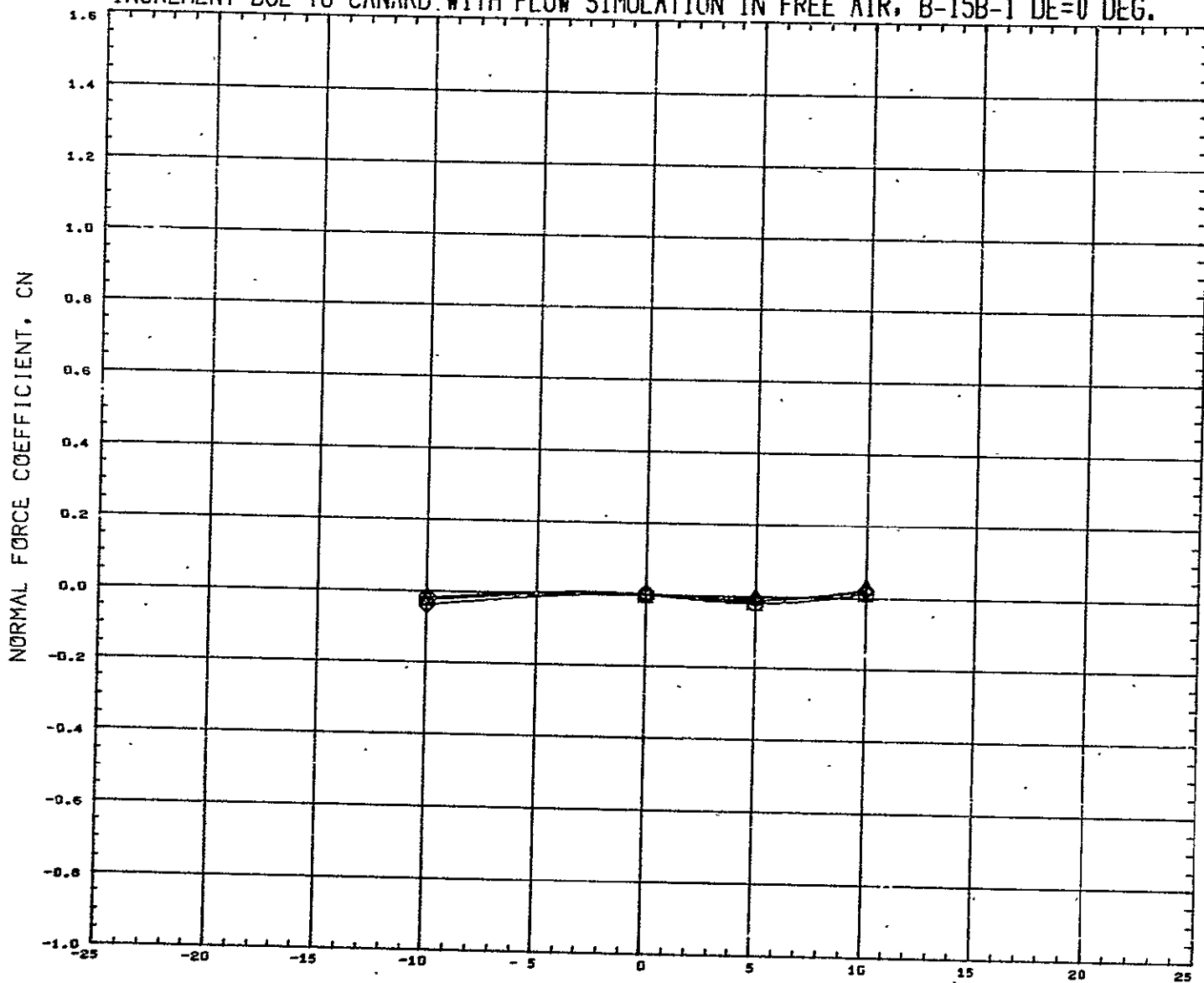
DATA HIST. CODE MVV#ATI#C

INCREMENT DUE TO CANARD WITH FLOW SIMULATION IN GROUND PLANE, B-15B-1 DE=0



SYMBOL	ALPHA		PARAMETRIC VALUES		DATA SOURCE				REFERENCE INFORMATION			
○	0.000	<u>FLOW</u>	0.620	BETA	0.000	DATASET	CANVTR	DATASET	CANVTR	SREF	380.30C4	SQ. IN
△	6.000	MACH	0.201	RUDDER	0.000	MCVGF2	- 10.000	MCVGF1	0.000	LREF	15.2150	IN.
◇	16.000	ELEVTR	0.000	AILRON	0.000	MCVGF6	10.000	MCVGF9	20.000	BREF	30.4400	IN.
		CANRON	0.000							XMRP	33.4360	IN.
										YMRP	0.0000	IN.
										ZMRP	3.9380	IN.
										SCALE	0.0175	
DATA HIST. CODE MVV*ATI*#C												

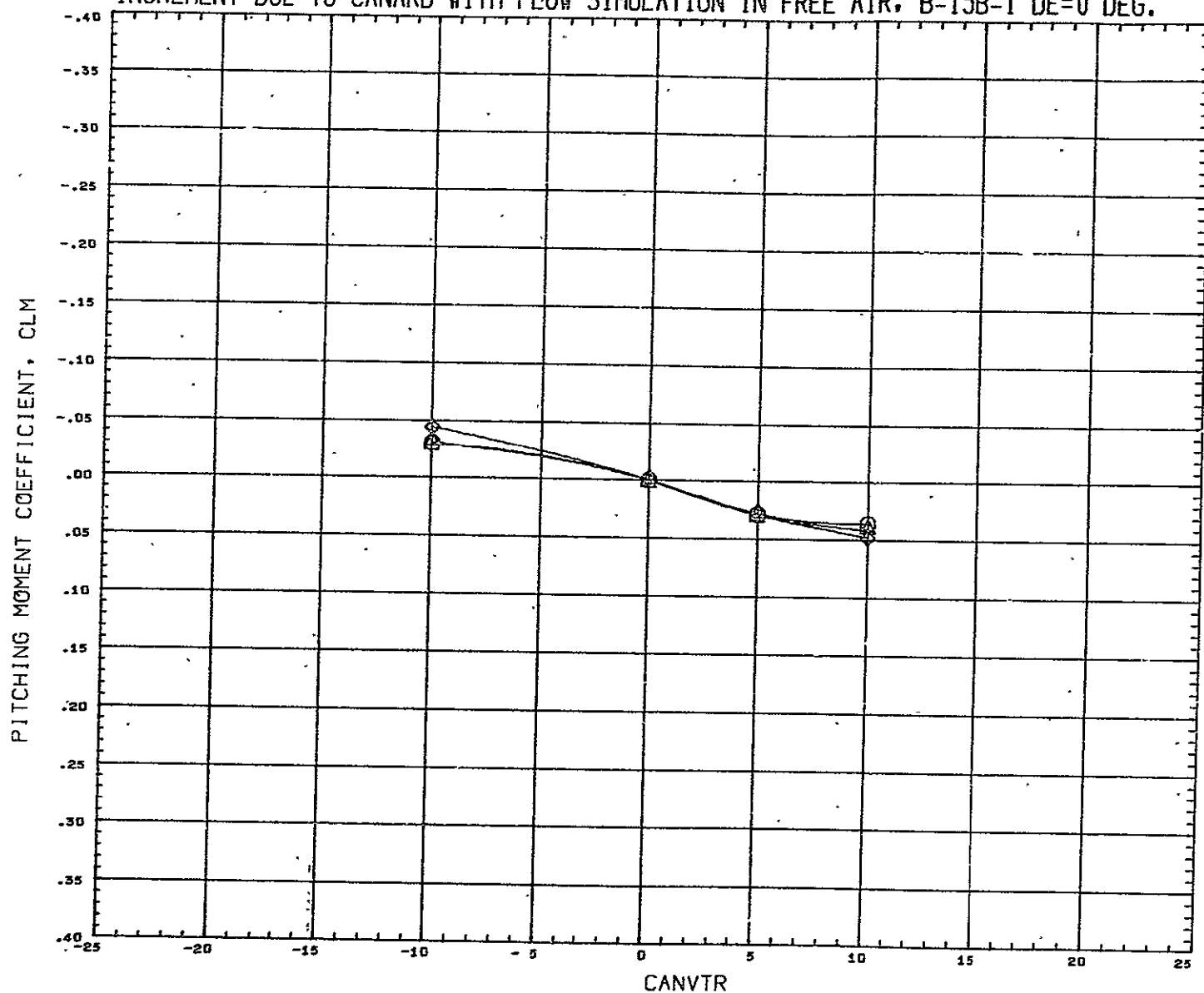
INCREMENT DUE TO CANARD WITH FLOW SIMULATION IN FREE AIR, B-15B-1 DE=0 DEG.



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	0.620 BETA	0.000	SRCF 380.3004 SQ. IN
△	8.000	0.201 RUDDER	0.000	LREF 15.2150 IN.
◇	16.000	0.000 AILRON	0.000	BREF 30.4400 IN.
		0.000	NCVF04 -10.000	XMRP 33.4360 IN.
			NCVF10 5.000	YMRP 0.0000 IN.
				ZMRP 3.9300 IN.
				SCALE 0.0175

DATA HIST. CODE MVV*ATI*C

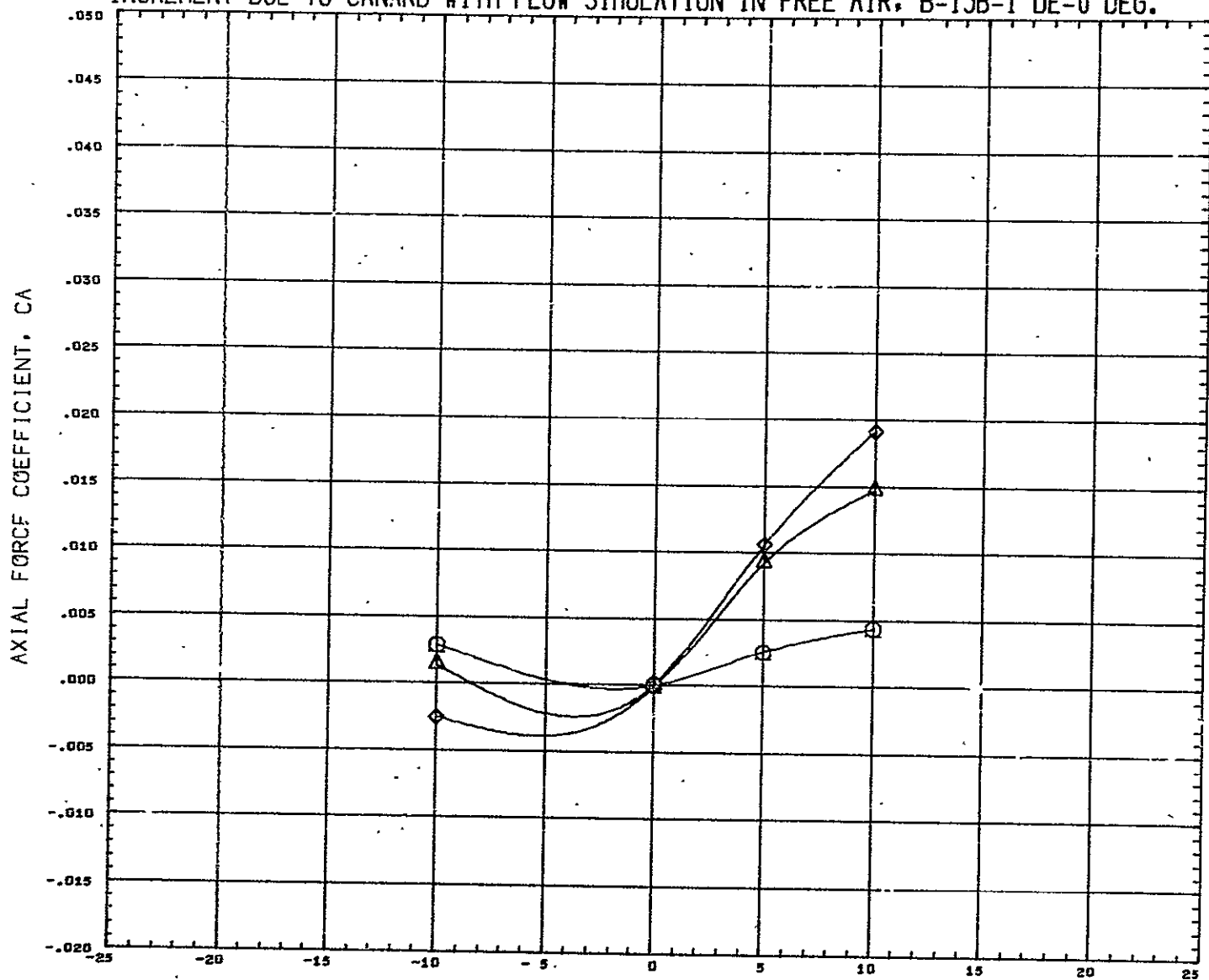
INCREMENT DUE TO CANARD WITH FLOW SIMULATION IN FREE AIR, B-15B-1 DE=0 DEG.



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	0.620 BETA	0.000 DATASET	380.3004 SQ. IN
△	8.000	0.201 RUDDER	0.000 NCVF04 - 10.000	15.2150 IN.
◇	16.000	0.000 AILRON	0.000 NCVF10 5.000	30.4400 IN.
		0.000 CANCON	NCVF06 10.000	33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

DATA HIST. CODE - MVV*ATI*C

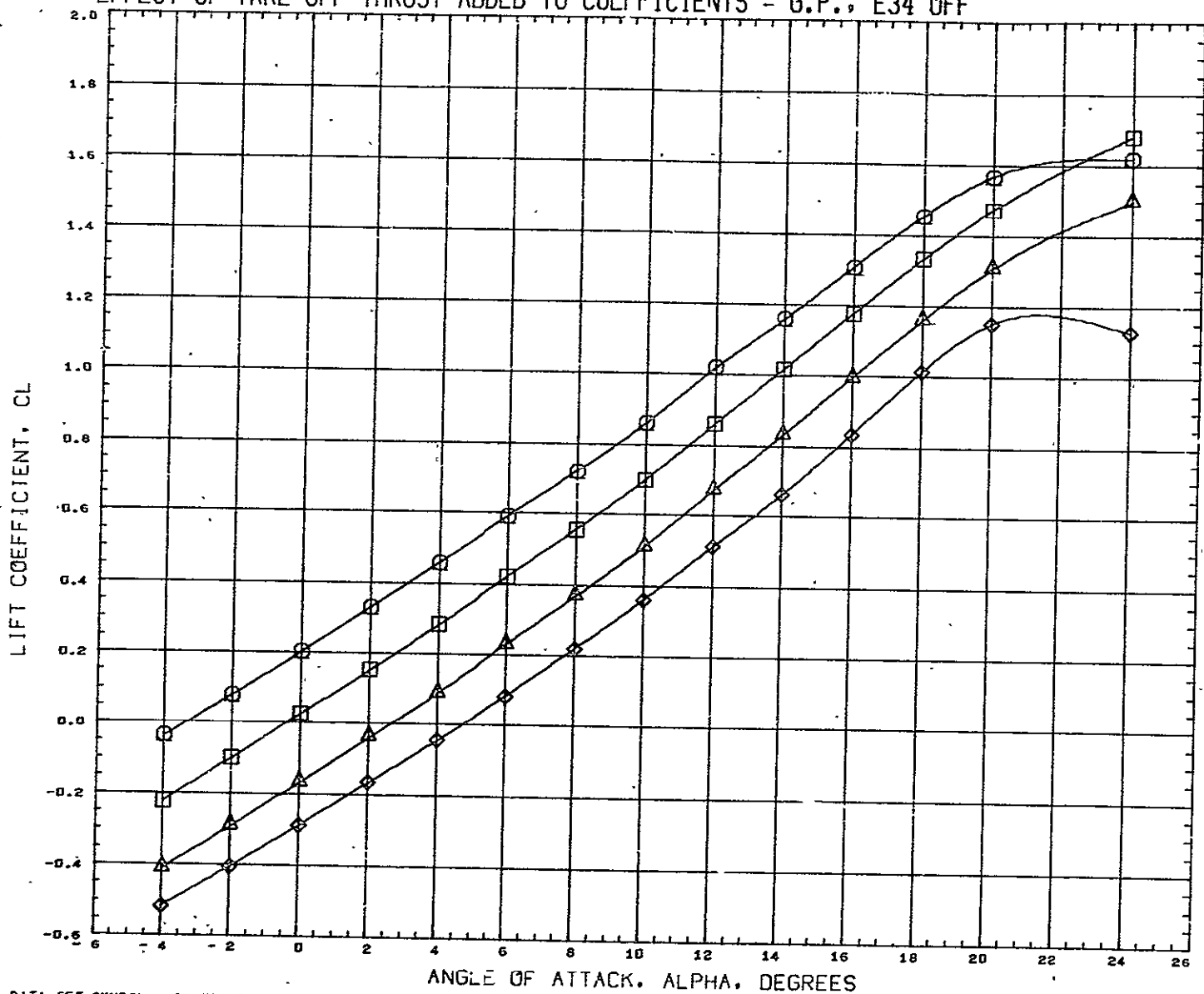
INCREMENT DUE TO CANARD WITH FLOW SIMULATION IN FREE AIR, B-15B-1 DE=0 DEG.



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		FLOW	0.620	BETA	0.000	DATASET	CANVTR	DATASET	CANVTR	SREF	SQ. IN
○	0.000	MACH	0.201	RUDDER	0.000	NCVF04	-10.000	NCVF05	0.000	LREF	15.2150
△	0.000	ELEVTR	0.000	AILRON	0.000	NCVF10	5.000	NCVF06	10.000	BREF	30.4400
◇	16.000	CANRON	0.000							XMRP	33.4360
										YMRP	0.0000
										ZMRP	3.9380
										SCALE	0.0175

DATA HIST. CODE HVV@ATI#C

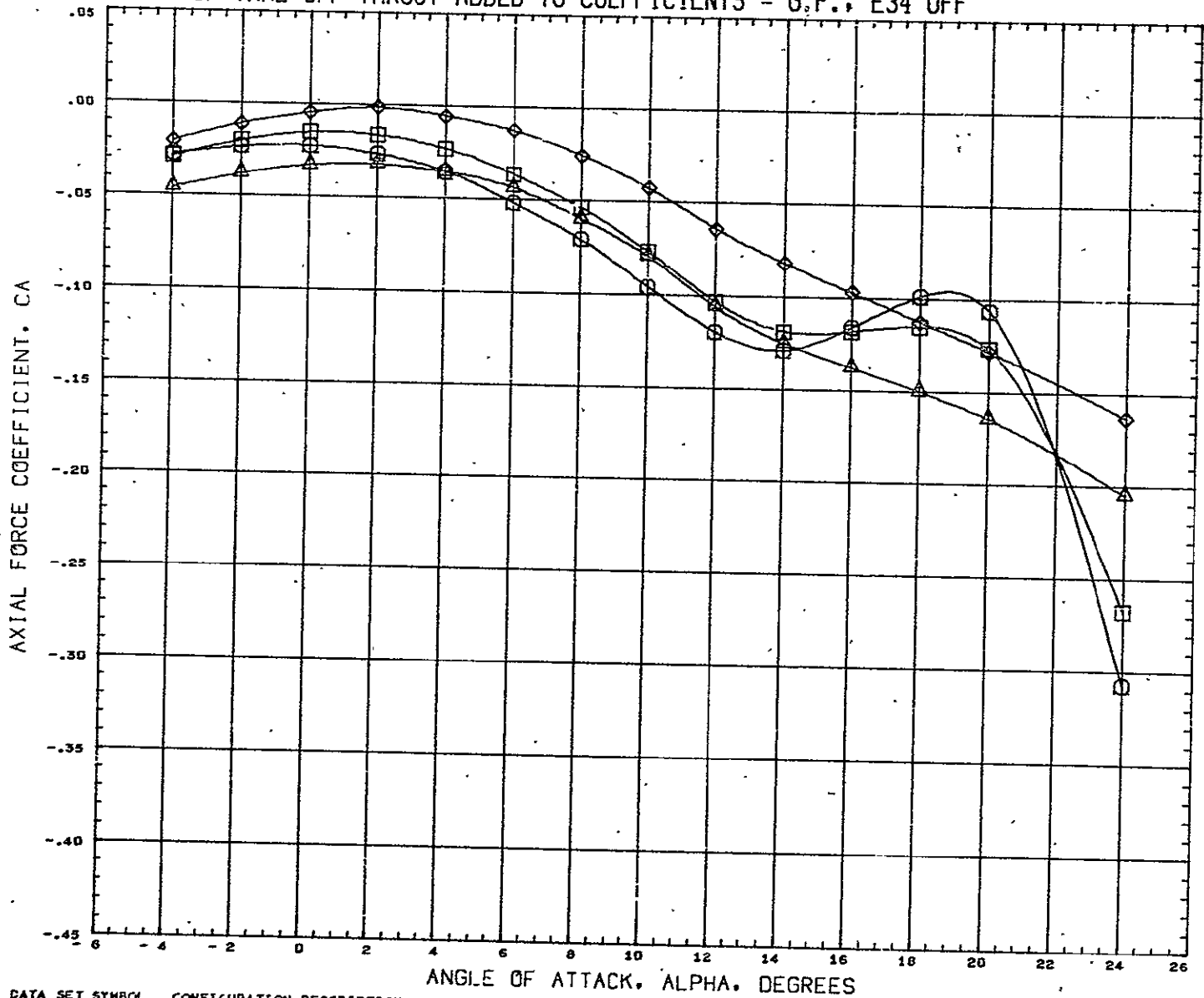
EFFECT OF TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC04)	GDLST 587-1 B21X1V7C4W16G3 + GF DC = 10	0.000	10.000	10.000	0.620	SREF 380.3004 SQ. IN
(RCVC06)	GDLST 587-1 B21X1V7C4W16G3 + GF DC = 10	0.000	-10.000	10.000	0.620	LREF 15.2150 IN.
(RCVC08)	GDLST 587-1 B21X1V7C4W16G3 + GF DC = 10	0.000	-20.000	10.000	0.620	BREF 30.4400 IN.
(RCVC10)	GDLST 587-1 B21X1V7C4W16G3 + G- DC = 10	0.000	0.000	10.000	0.620	XHRP 33.4360 IN.
						YHRP 0.0000 IN.
						ZHRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

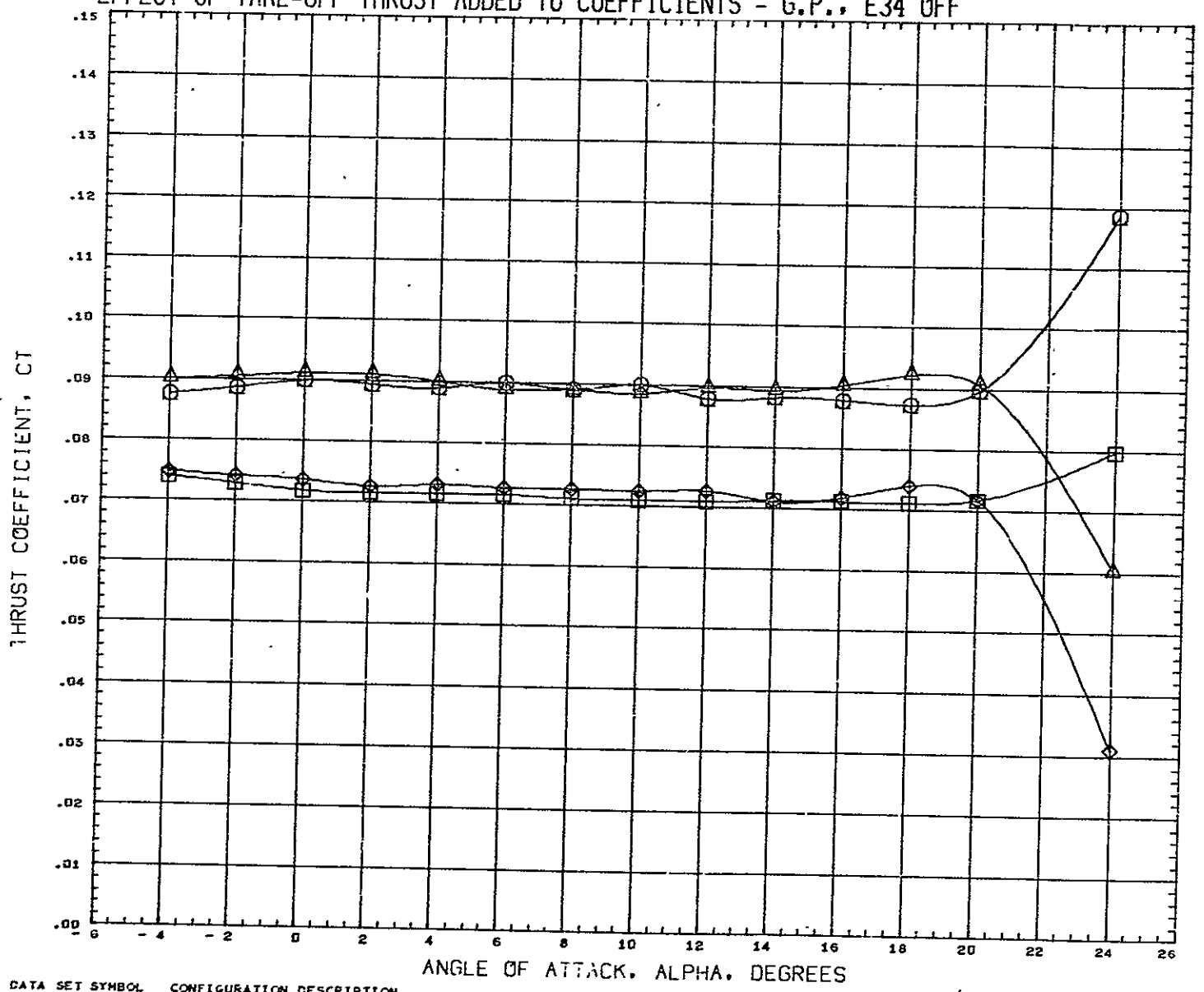
EFFECT OF TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVCG4)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	10.000	10.000	0.620	SREF 380.3004 SQ. IN
(RCVCG6)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	-10.000	10.000	0.620	LREF 15.2150 IN.
(RCVCG8)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	-20.000	10.000	0.620	BREF 30.4400 IN.
(RCVCG10)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.900	10.000	0.620	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

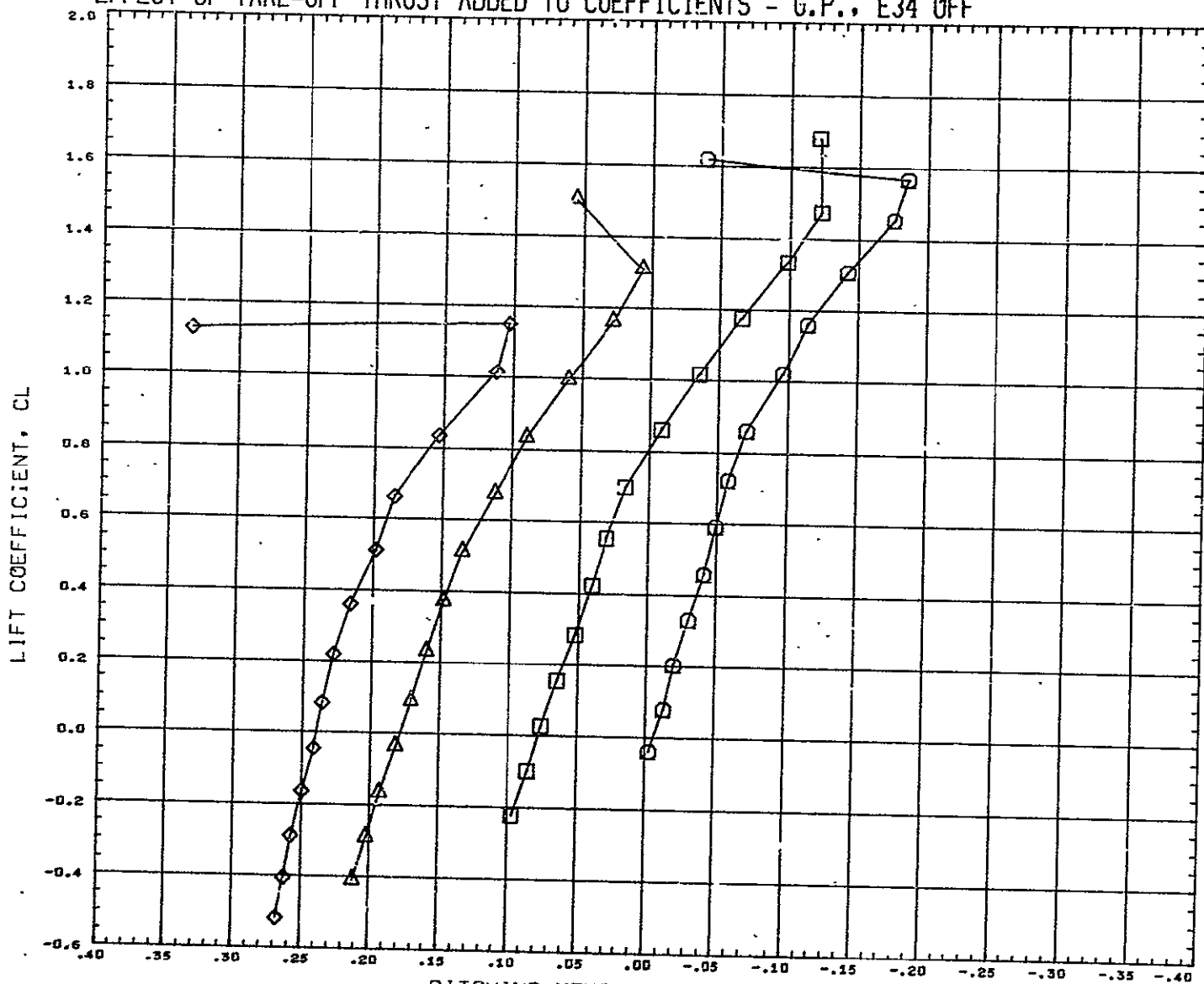
EFFECT OF TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION		
(RCVCD4)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	10.000	10.000	0.620	SREF	380.300-	SQ. IN
(RCVCD6)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	-10.000	10.000	0.620	LREF	15 2153	IN.
(RCVCD8)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	-20.000	10.000	0.620	BREF	30.4400	IN.
(RCVCD10)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	10.000	0.620	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

MACH 0.201

EFFECT OF TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RCVCD4)	○	GDLST 587-1	B21X1V7C4W16G3	+ GP	DC = 10
(RCVCD6)	△	GDLST 587-1	B21X1V7C4W16G3	+ GP	DC = 10
(RCVCD8)	◇	GDLST 587-1	B21X1V7C4W16G3	+ GP	DC = 10
(RCVCD10)	□	GDLST 587-1	B21X1V7C4W16G3	+ GP	DC = 10

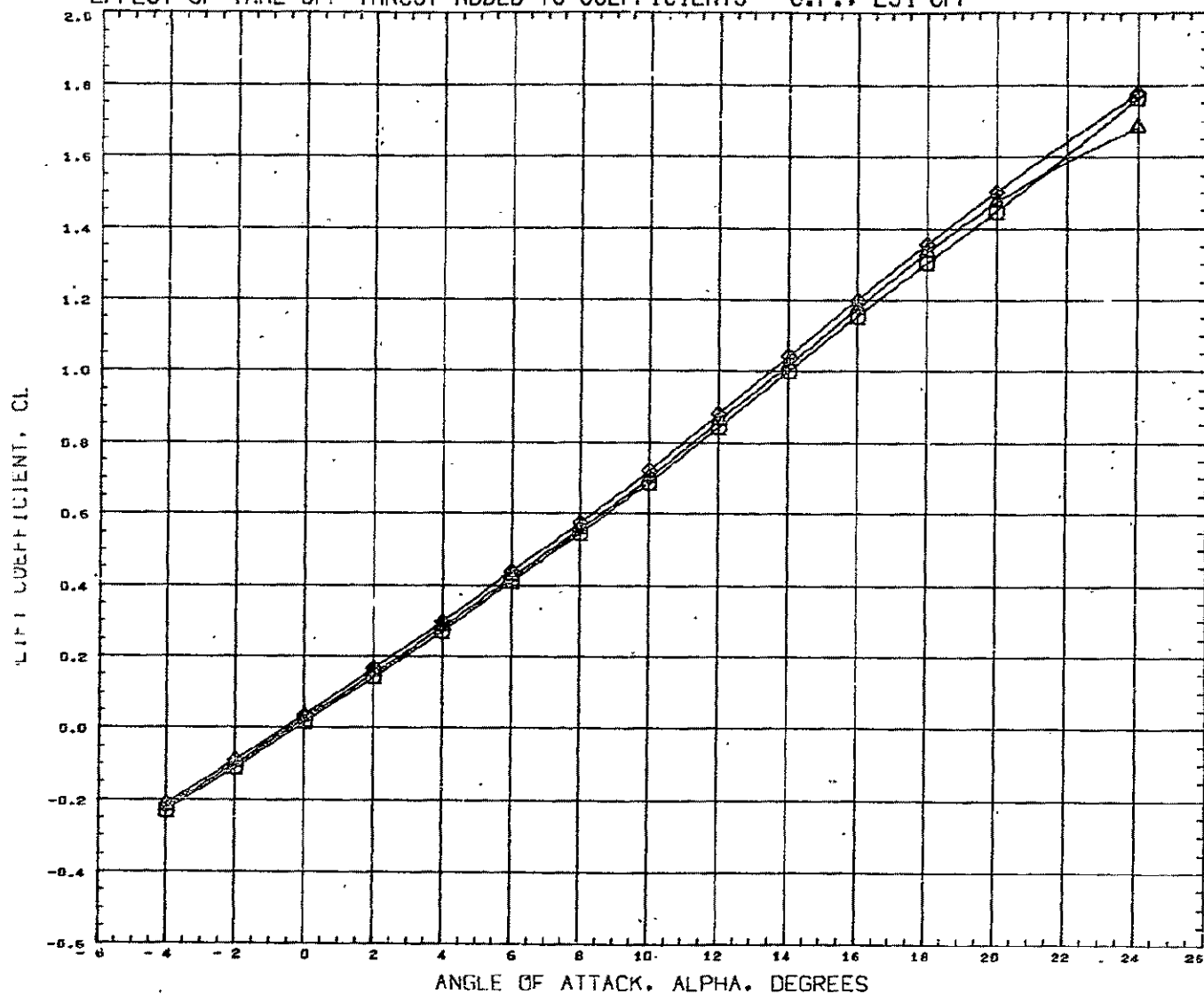
BETA	ELEVTR	CANVTR	FLOW
0.000	10.000	10.000	0.620
0.000	-10.000	10.000	0.620
0.000	-20.000	10.000	0.620
0.000	0.000	10.000	0.620

REFERENCE INFORMATION

SREF	380.300	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	5.9380	IN.
SCALE	0.0175	

MACH 0.201

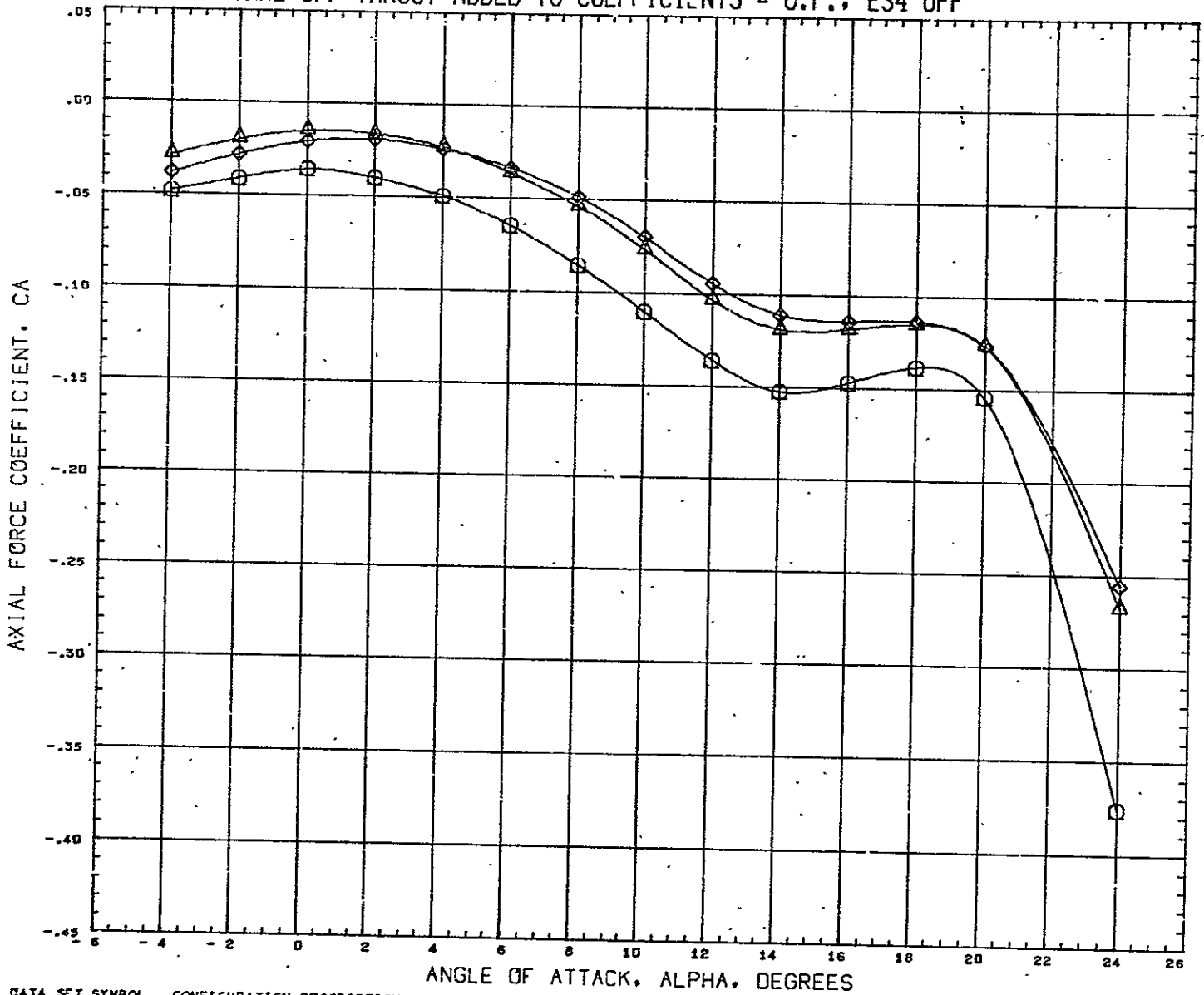
EFFECT OF TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
RCVCD2)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.620	SREF 380.350 IN. SQ. IN
RCVCI0)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	10.000	0.620	LREF 15 210 IN.
RCVCI4)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 20	0.000	0.000	20.000	0.620	BREF 30.400 IN.
						XNRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZNRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

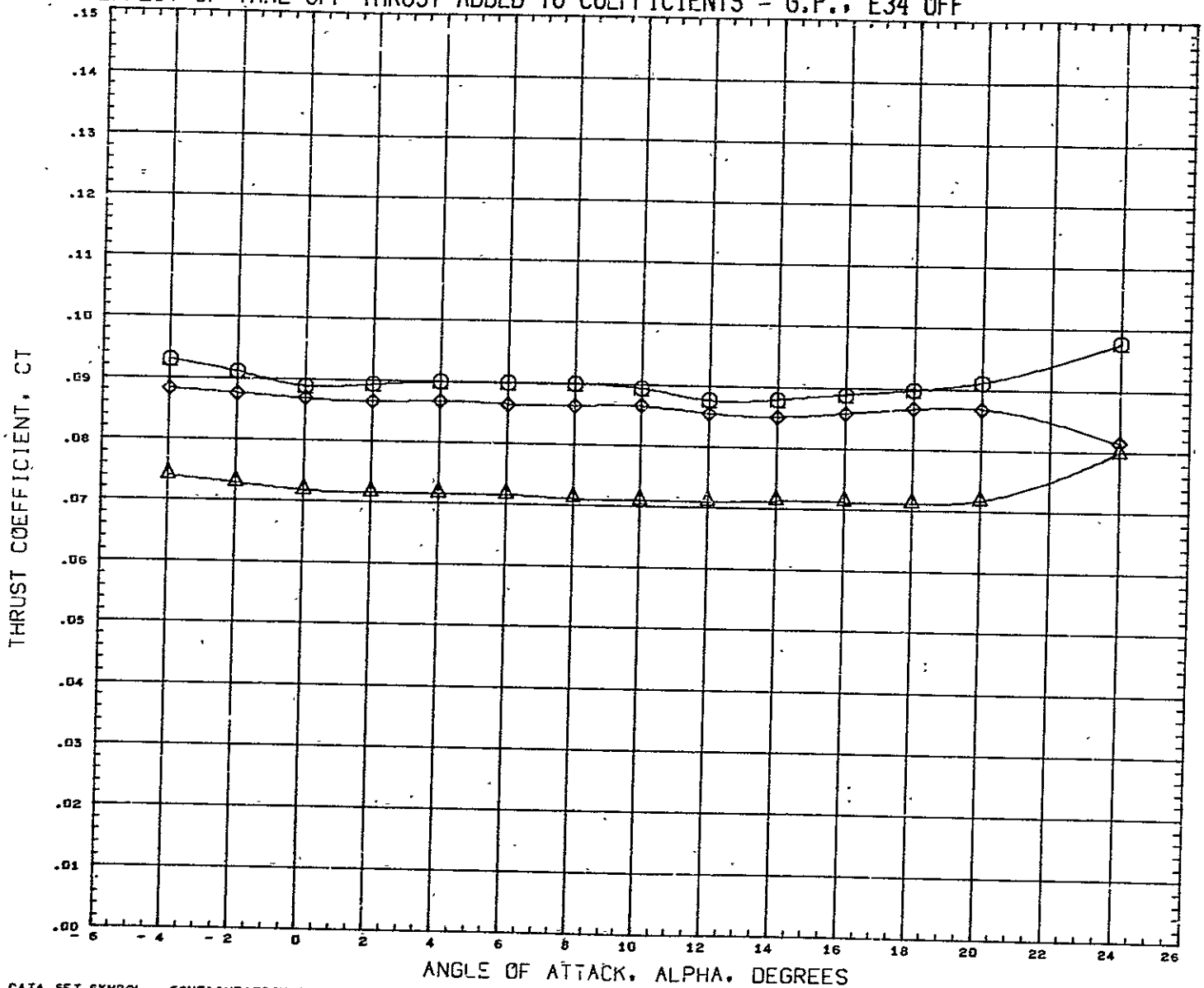
EFFECT OF TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC02)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.620	SREF 380.30Fc SQ. IN
(RCVC10)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	10.000	0.620	LREF 15.2150 IN.
(RCVC14)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 20	0.000	0.000	20.000	0.620	BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

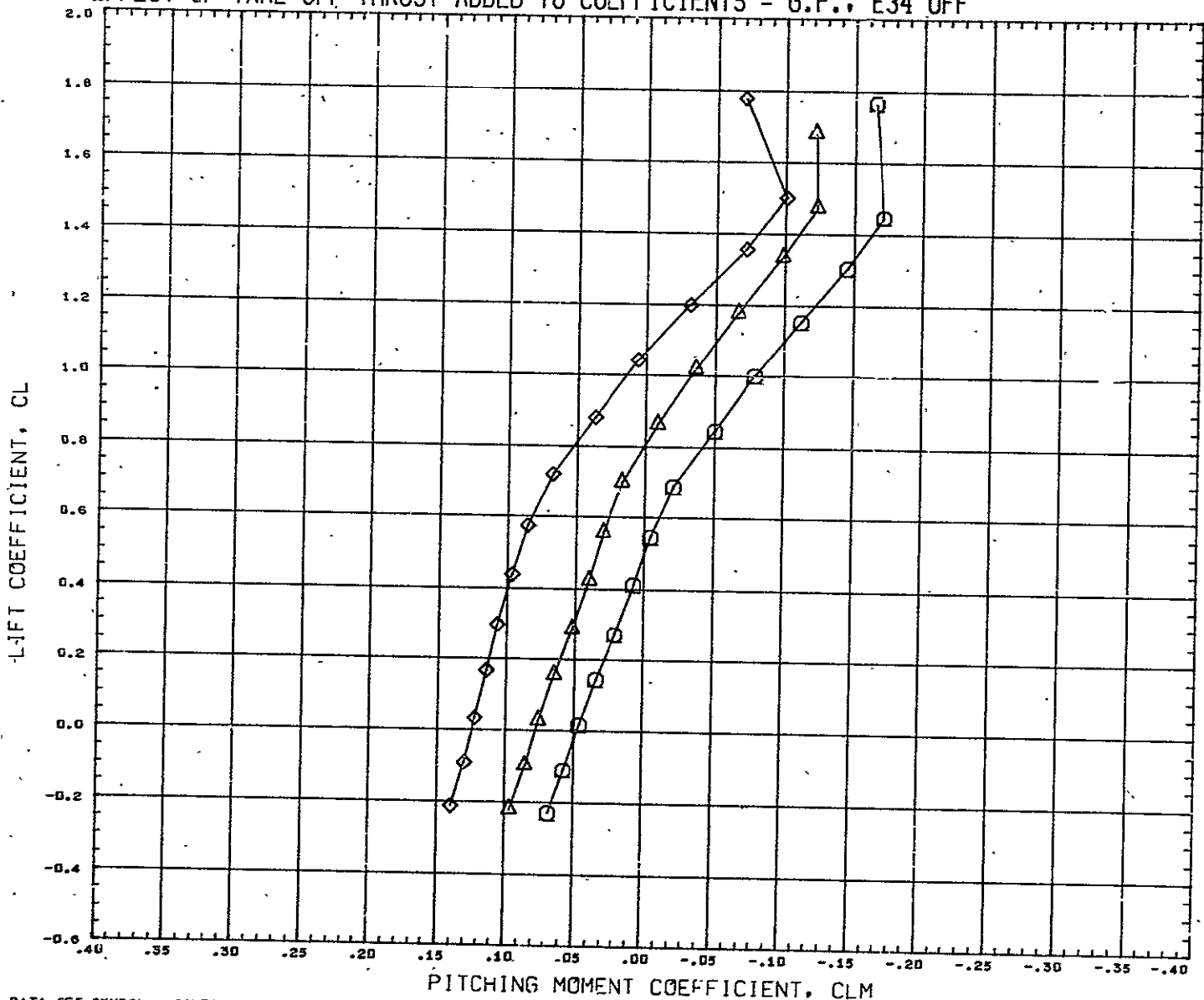
EFFECT OF TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION	
(RCVC02)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.620	SREF	380.3004 SQ. IN
(RCVC10)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	10.000	0.620	LREF	15.215 IN.
(RCVC14)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 20	0.000	0.000	20.000	0.620	BREF	30.430 IN.
						XMRP	33.4360 IN.
						MRP	0.0000 IN.
						RP	3.9380 IN.
						ALE	0.0175

MACH 0.201

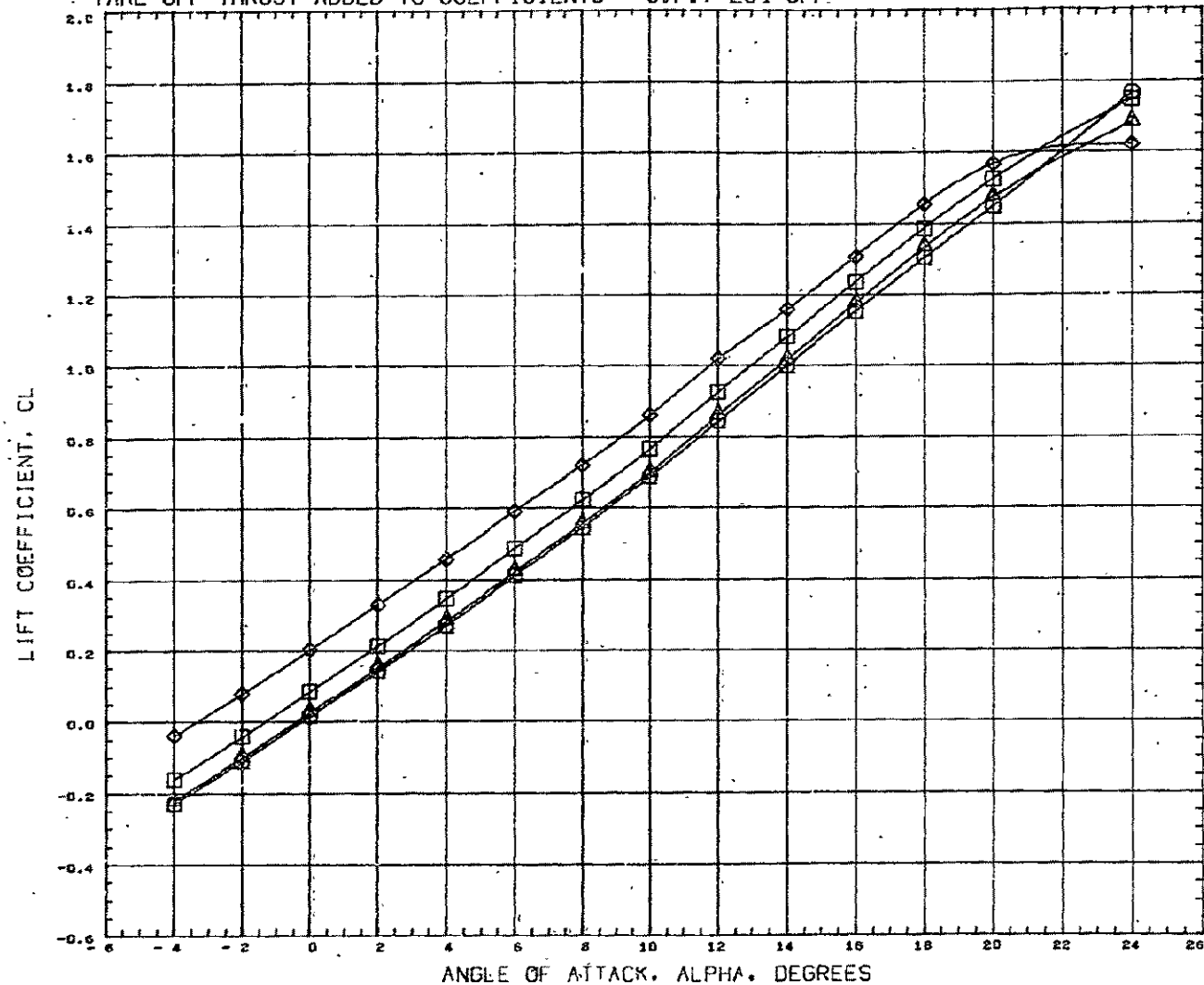
EFFECT OF TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC02)	○	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.620	SREF 380.3004 SQ. IN
(RCVC10)	△	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	10.000	0.620	LREF 15.2155 IN.
(RCVC14)	◇	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 20	0.000	0.000	20.000	0.620	BREF 30.4400 IN.
							XHRP 33.4360 IN.
							YHRP 0.0000 IN.
							ZHRP 3.9380 IN.
							SCALE 0.0175

MACH 0.201

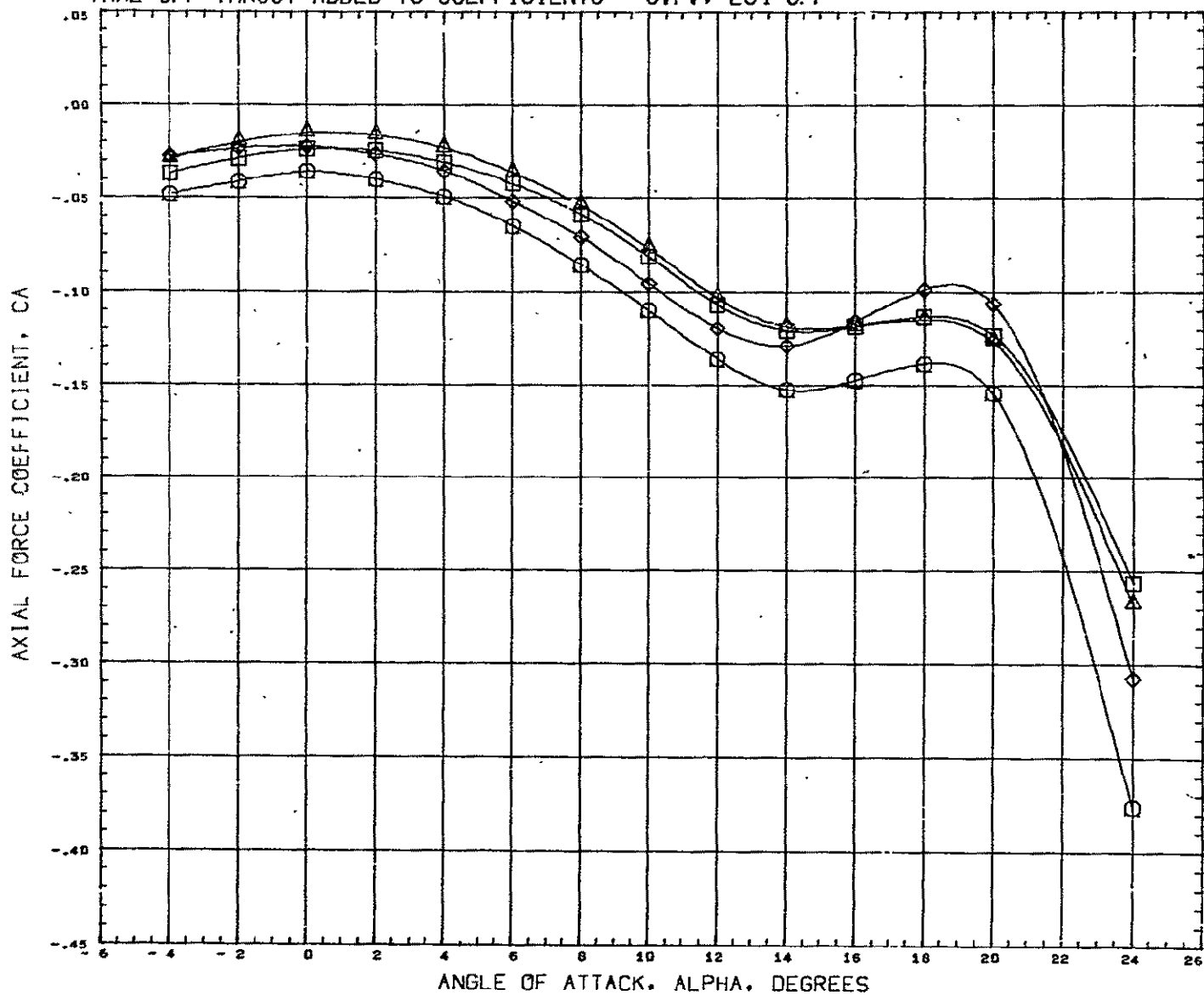
TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF.



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC02)	○	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.620	SREF 360.3004 SQ. IN
(RCVC10)	△	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	10.000	0.620	LREF 15.2155 IN.
(RCVC04)	◇	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	10.000	10.000	0.620	BREF 30.4406 IN.
(RCVC12)	□	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 15	0.000	3.000	15.000	0.620	XMRP 33.4560 IN.
							YMRP 0.0000 IN.
							ZMRP 3.9380 IN.
							SCALE 0.9175

MACH 0.201

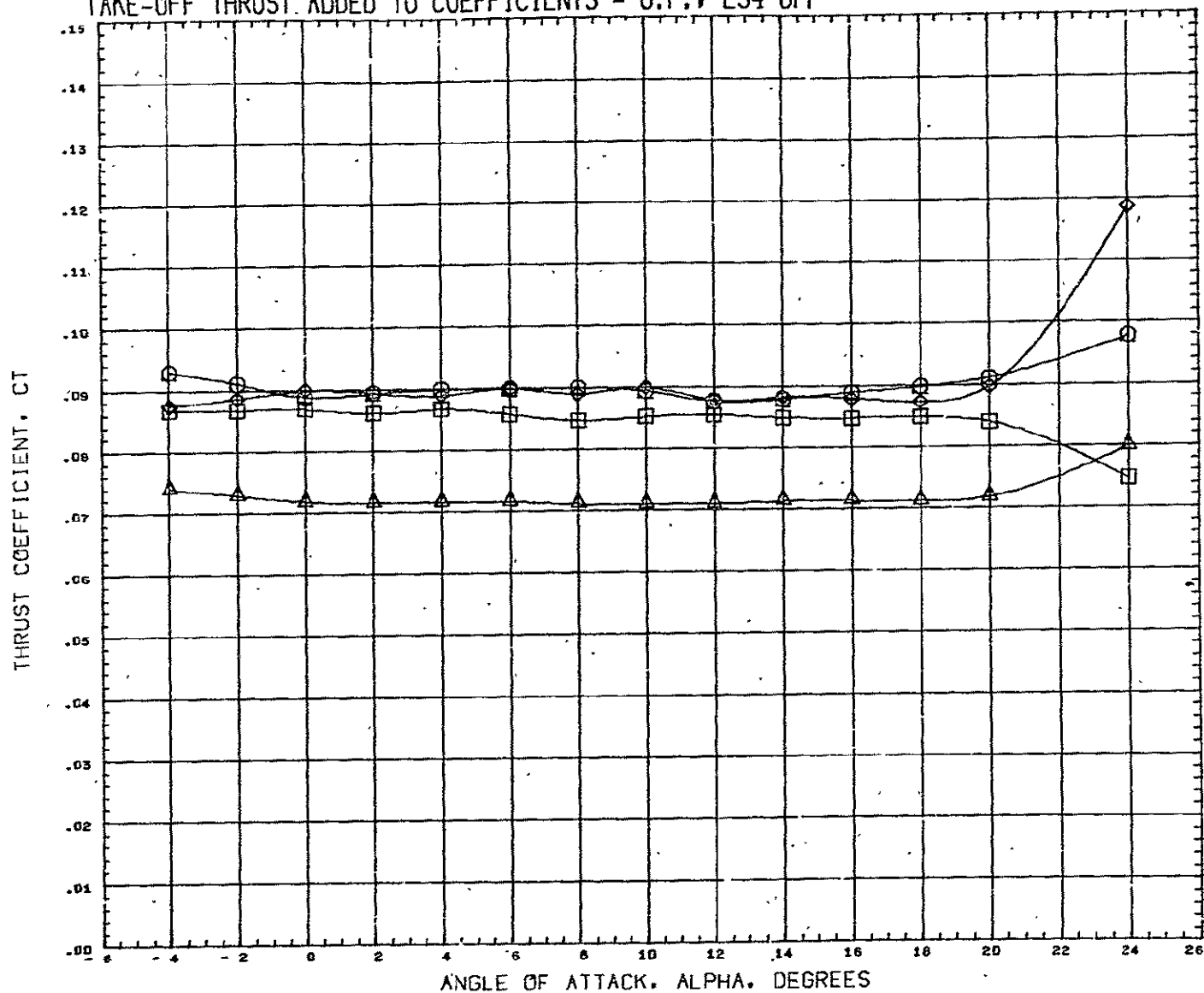
TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC02)	GDLST 587-1 B21X1V7C4W16G3 + CP DC = 0	0.000	0.000	0.000	0.620	SREF 380.3004 SQ. IN
(RCVC10)	GDLST 587-1 B21X1V7C4W16G3 + CP DC = 10	0.000	0.000	10.000	0.620	LREF 15.2155 IN.
(RCVC04)	GDLST 587-1 B21X1V7C4W16G3 + CP DC = 10	0.000	10.000	10.000	0.620	BREF 30.4400 IN.
(RCVC12)	GDLST 587-1 B21X1V7C4W16G3 + CP DC = 15	0.000	3.000	15.000	0.620	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

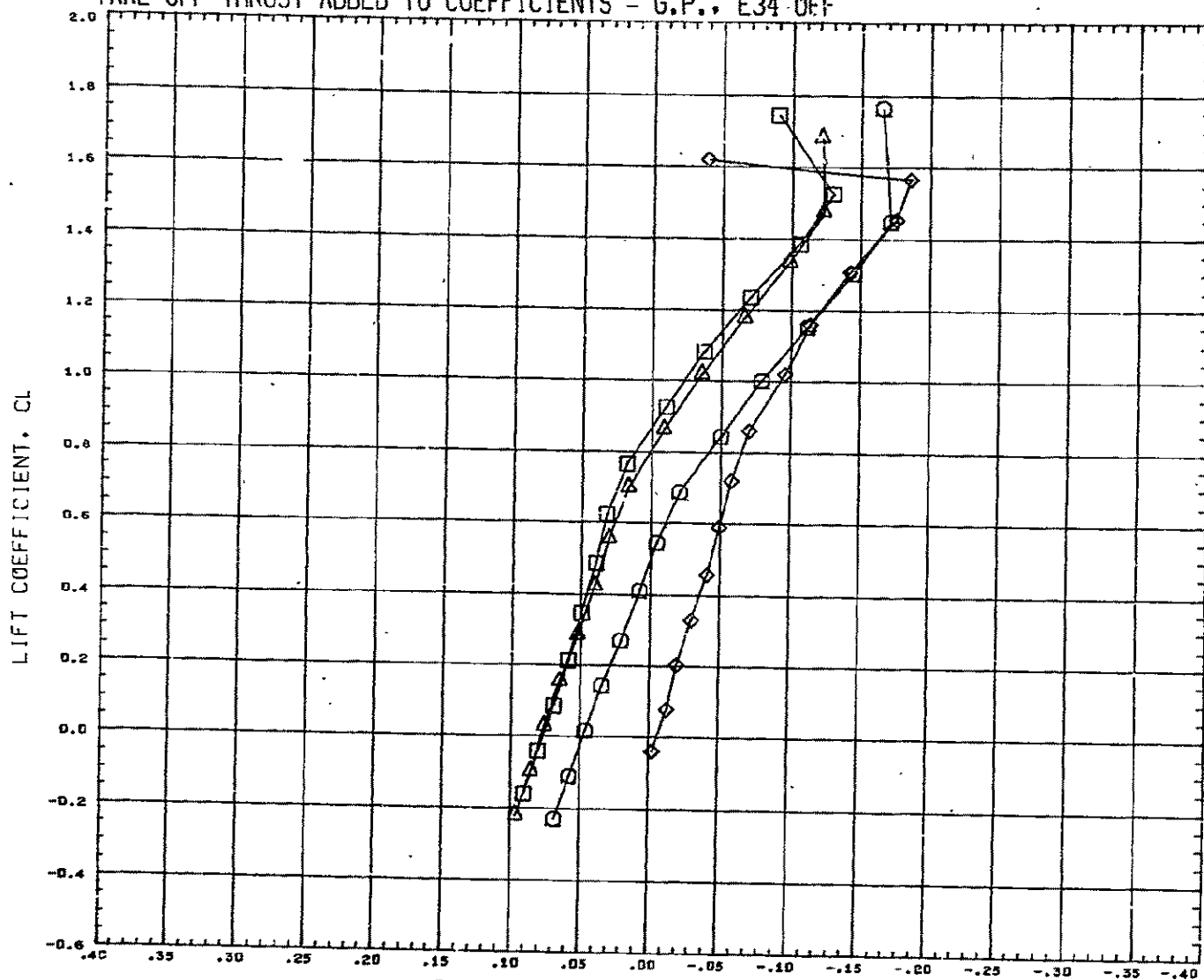
TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC02)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.620	SREF 300.3004 SQ. IN
(RCVC10)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	0.000	10.000	0.620	LREF 15.2156 IN.
(RCVC04)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	10.000	10.000	0.620	BREF 30.4400 IN.
(RCVC12)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 15	0.000	3.000	15.000	0.620	XHRP 33.4360 IN.
						YHRP 0.0000 IN.
						ZHRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

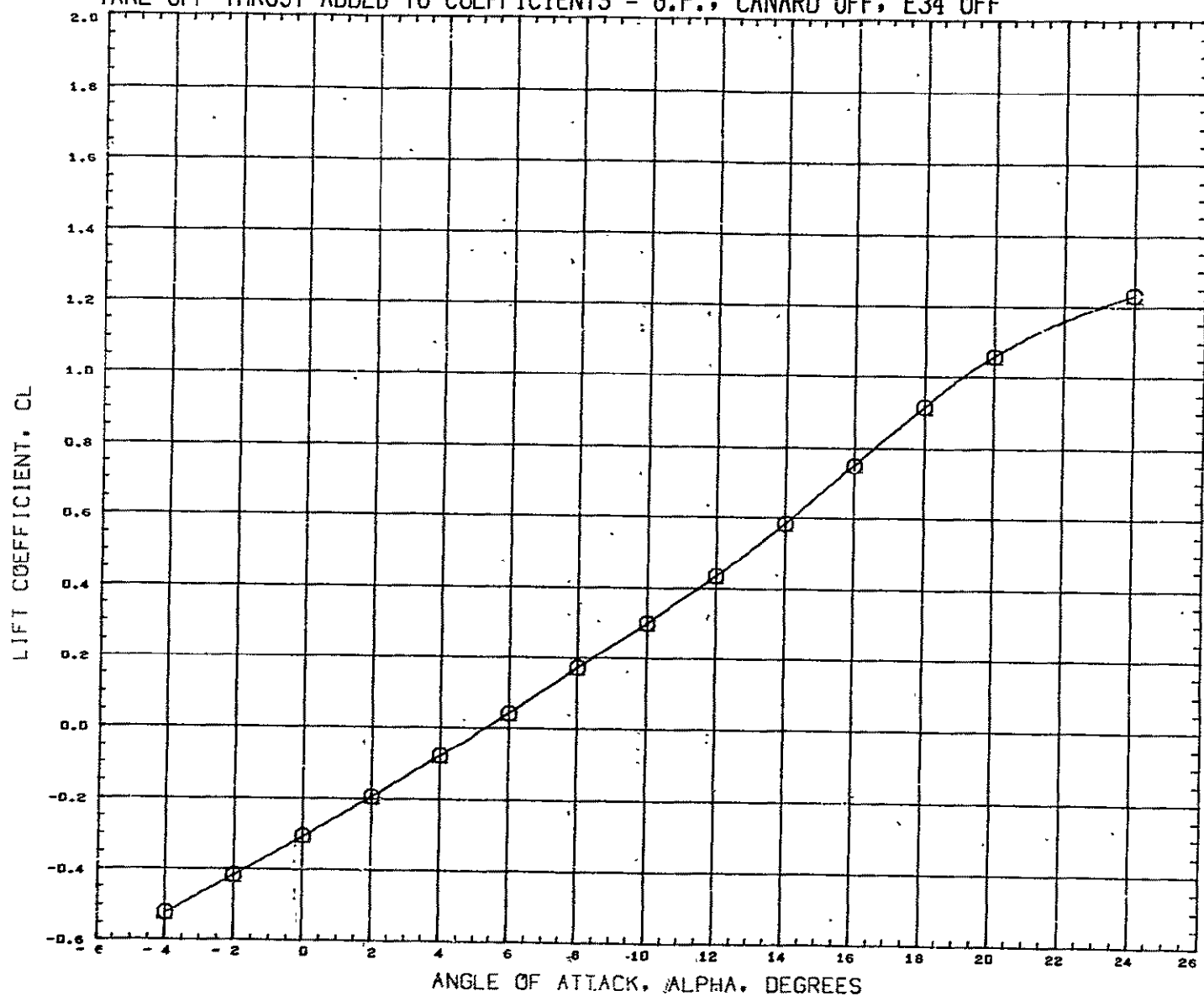
TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 DEF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC02)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 0	0.000	0.000	0.000	0.620	SREF 380.3004 SQ. IN
(RCVC10)	GDLST 587-1 B21X1V7.4W16G3 + GP DC = 10	0.060	0.000	10.000	0.620	LREF 15.215 IN.
(RCVC04)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 10	0.000	10.000	10.000	0.620	BREF 30.4400 IN.
(RCVC12)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 15	0.000	3.000	15.000	0.620	XMRP 35.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9580 IN.
						SCALE 0.0175

MACH 0.201

TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., CANARD OFF, E34 OFF



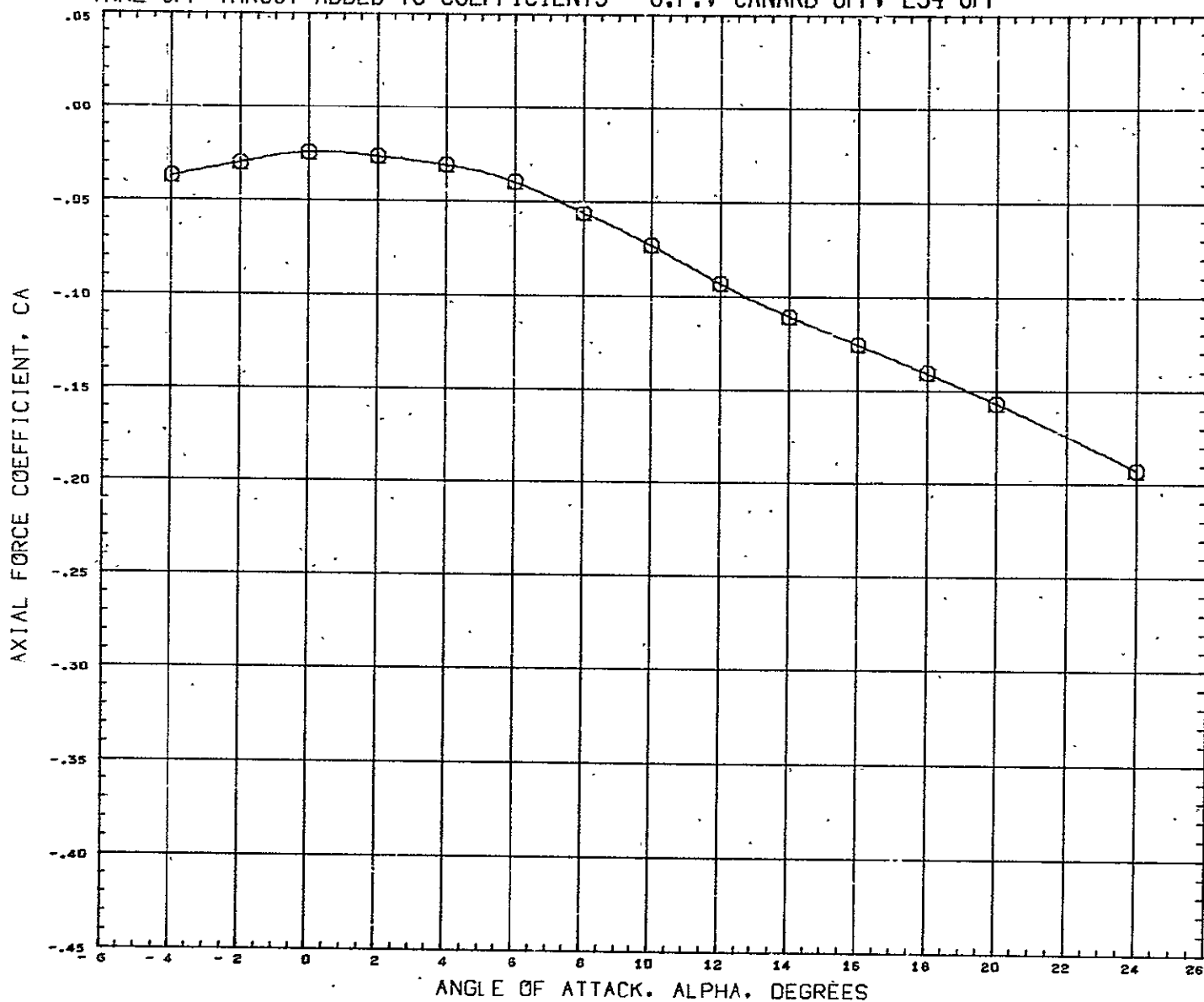
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RCVC16) ○ GDLST 5E7-1 B21X1V7W16G3 + GP

BETA ELEVTR FLOW
 0.000 -20.000 0.620

REFERENCE INFORMATION
 SREF 380.3004 SQ. IN
 LREF 15.2150 IN.
 BREF 30.4400 IN.
 XMRP 33.4360 IN.
 YMRP 0.0000 IN.
 ZMRP 3.9380 IN.
 SCALE 0.0175

MACH 0.201

TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., CANARD OFF, E34 OFF



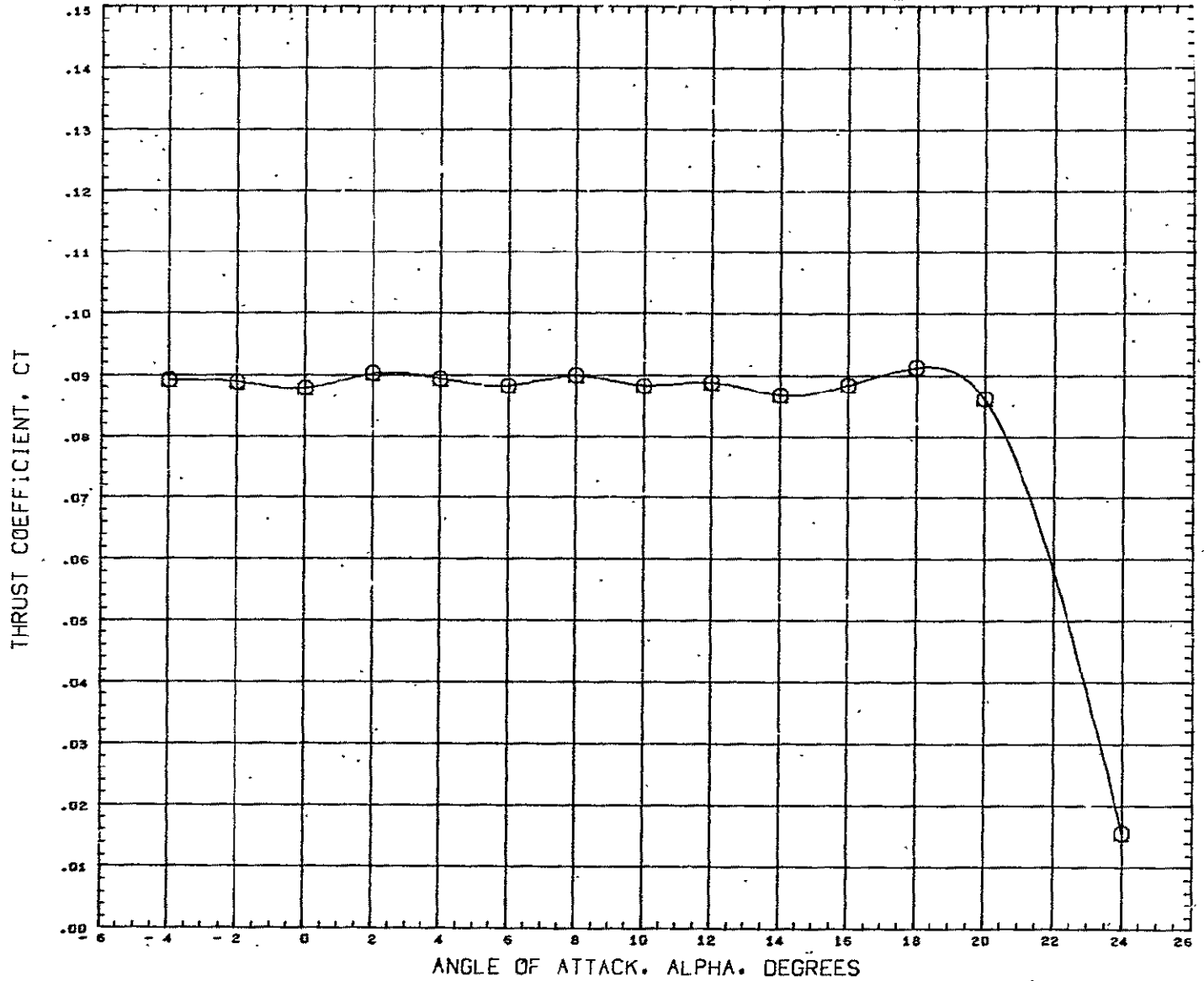
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RCVC16) □ GDLST 587-1 B21X1V7W16G3 + GP

BETA ELEVTR FLOW
0.000 -20.000 0.620

REFERENCE INFORMATION
SREF 380.3004 SQ. IN
LREF 15.2150 IN.
BREF 30.4470 IN.
XMRP 33.4360 IN.
YMRP 0.0000 IN.
ZMRP 3.9380 IN.
SCALE 0.0175

MACH 0.201

TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., CANARD OFF, E34 OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RCVC16) ☐ GDLST 587-1 B21X1V7W16G3 + GP

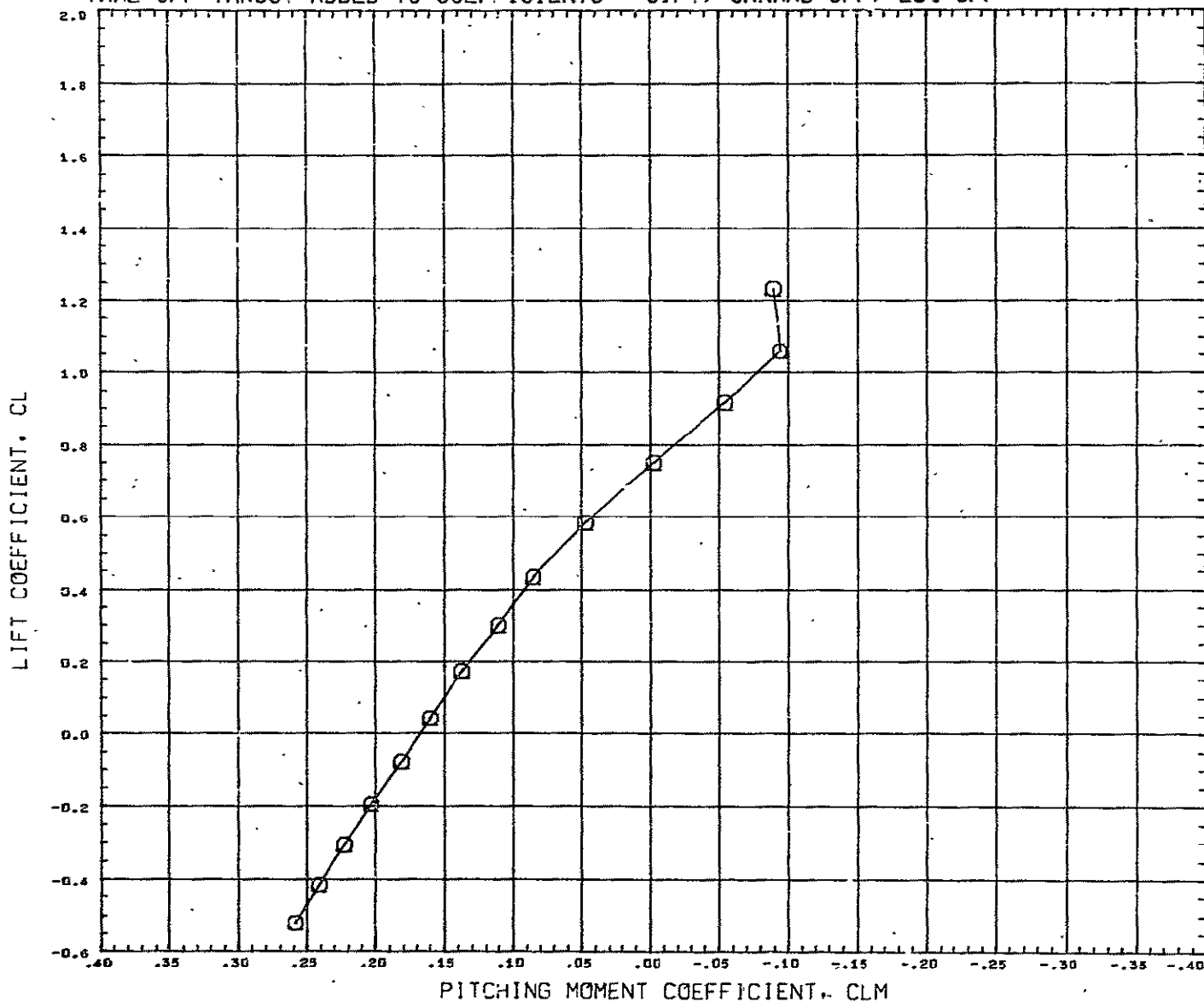
BETA ELEVTR FLOW
 0.000 -20.000 0.620

REFERENCE INFORMATION

SREF	389.3094	SQ. IN
LREF	15.2150	IN.
BREF	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

MACH -0.201

TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., CANARD OFF, E34 OFF



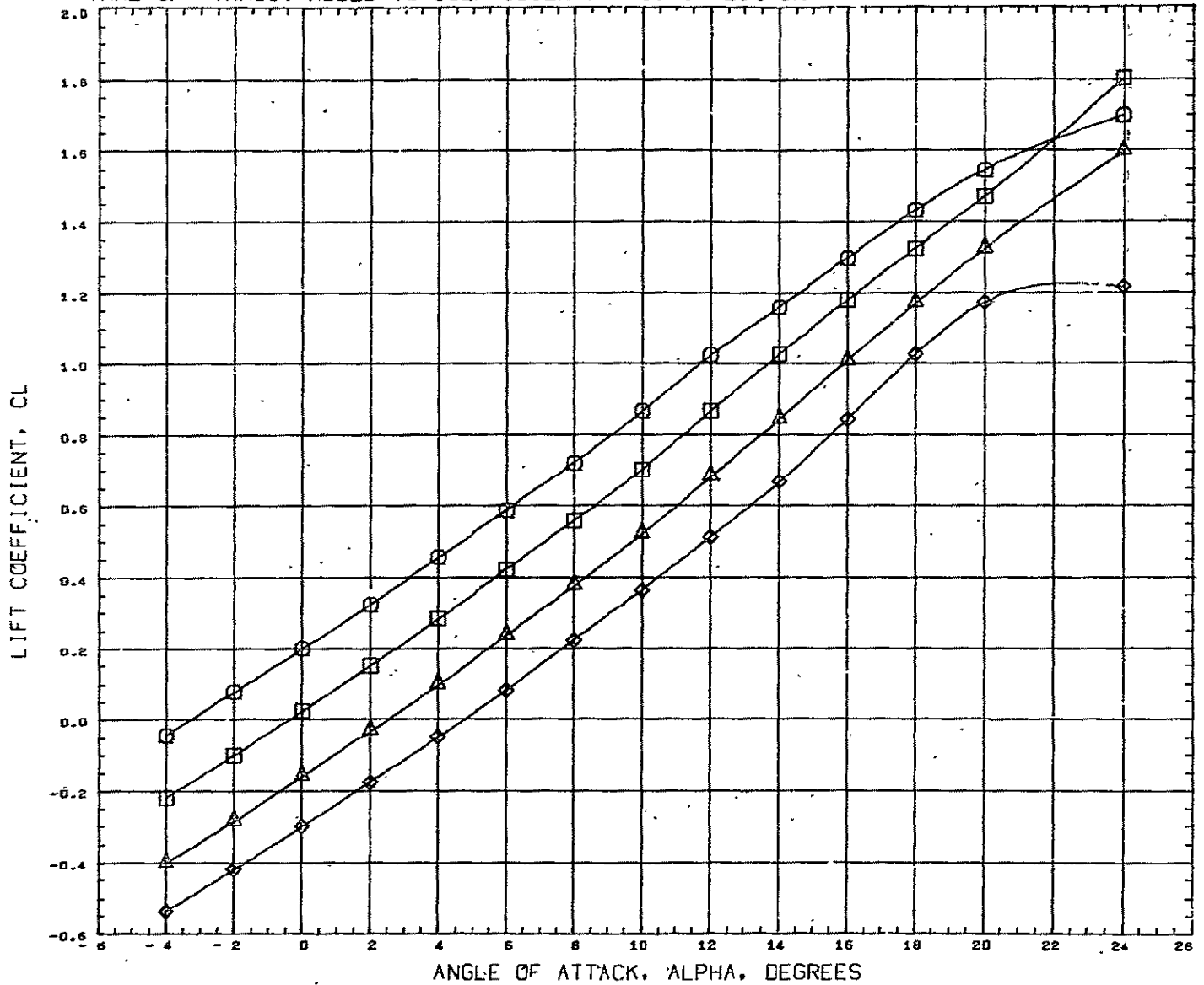
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RCVC16) ○; GDLST 587-1 B21XIV7W1663 + GP

BETA ELEVTR FLOW
0.000 -20.000 0.620

REFERENCE INFORMATION
SREF 380.3004 SQ. IN
LREF 15.2152 IN.
BREF 30.4700 IN.
XMRP 33.4360 IN.
YMRP 0.0000 IN.
ZMRP 3.9380 IN.
SCALE 0.0175

MACH 0.201

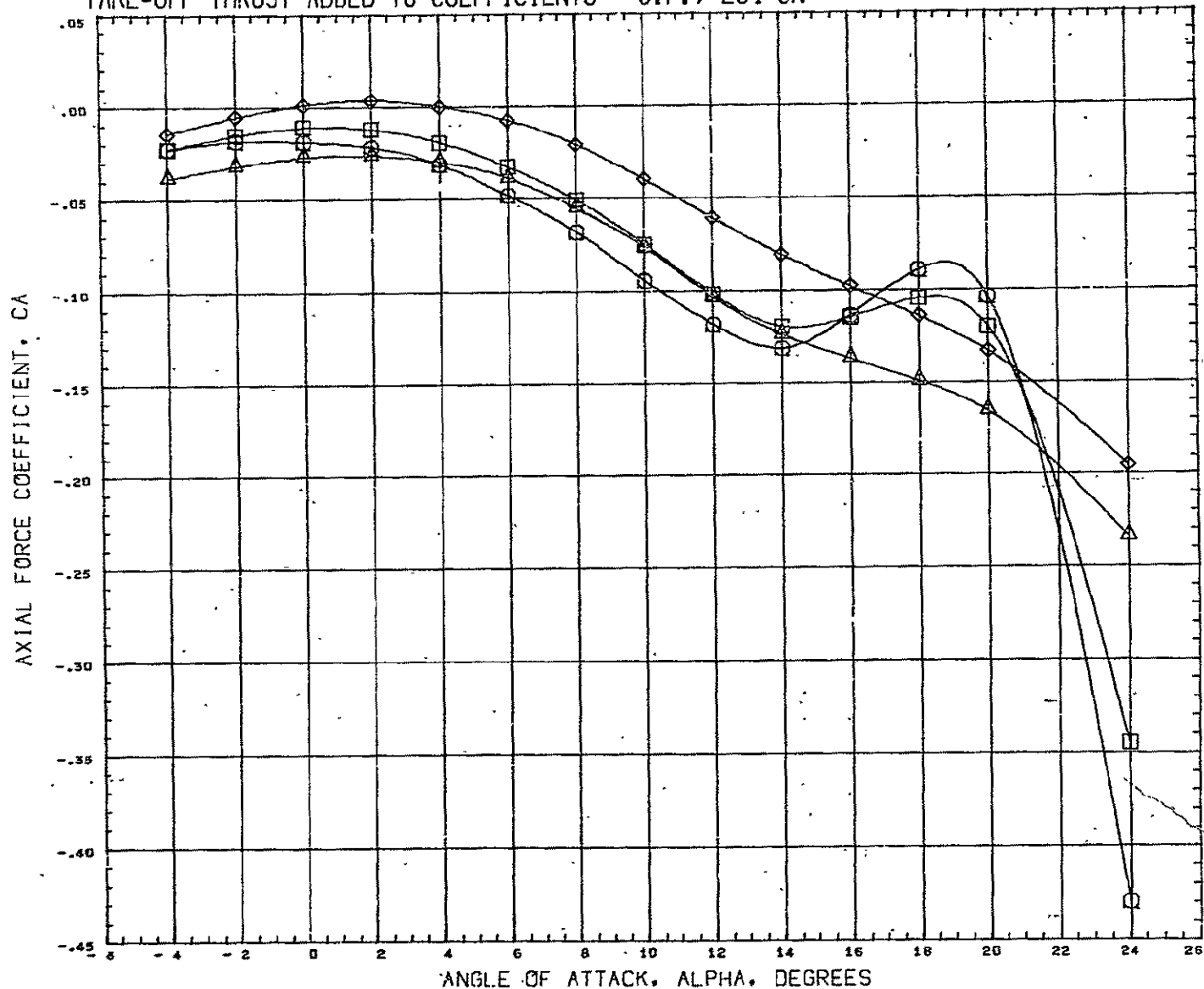
TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 ON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC20)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	10.000	10.000	0.620	SREF 380.3001 SQ. IN
(RCVC22)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	-10.000	10.000	0.620	LREF 15.2100 IN.
(RCVC24)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	-20.000	10.000	0.620	BREF 30.4400 IN.
(RCVC26)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	0.000	10.000	0.620	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

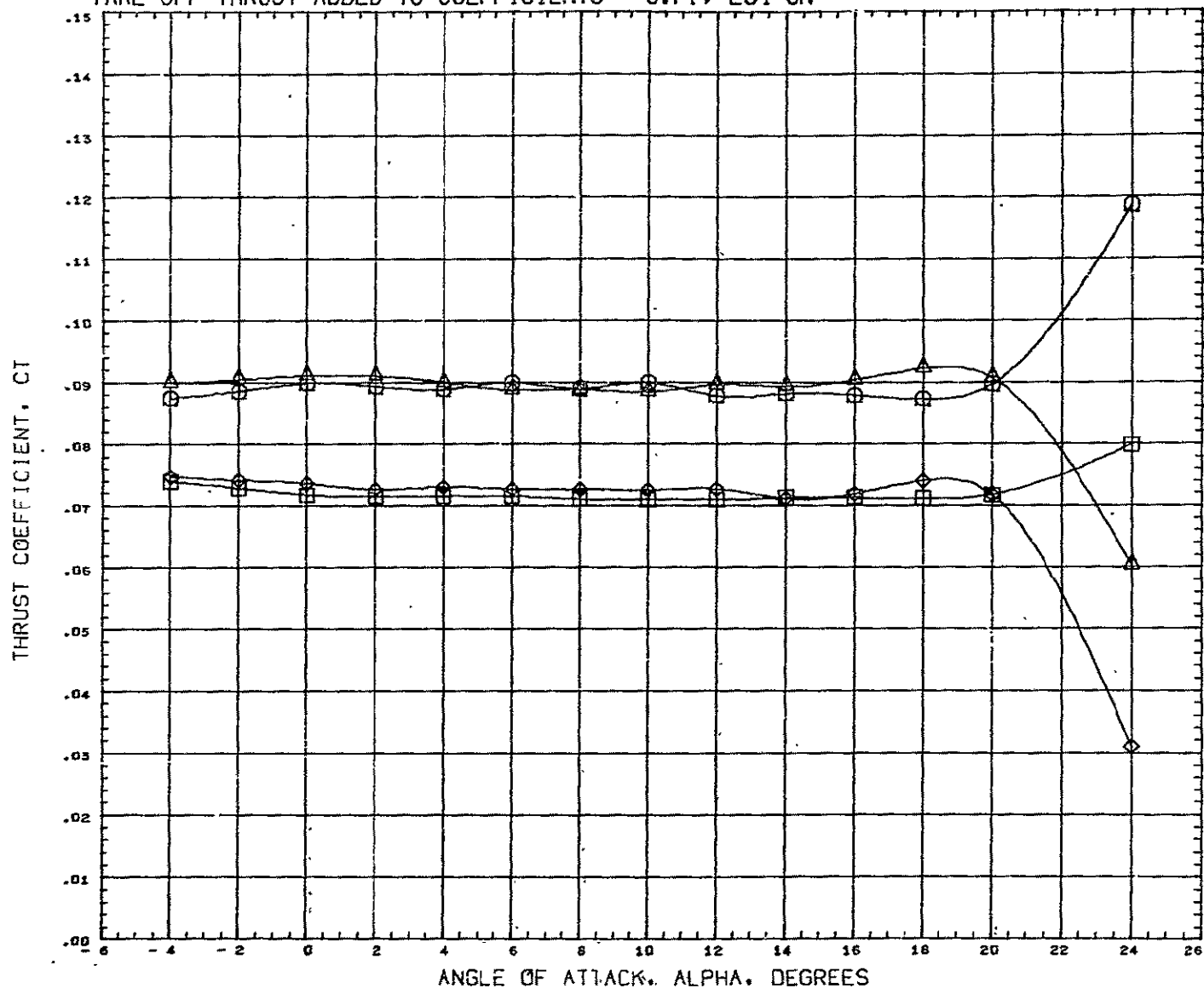
TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 ON



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION	
(RCVC20)		GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	10.000	10.000	0.620	SREF	386.3004 SQ. IN
(RCVC22)		GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	-10.000	10.000	0.620	LREF	15.2100 IN.
(RCVC24)		GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	-20.000	10.000	0.620	BREF	30.4400 IN.
(RCVC26)		GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	0.000	10.000	0.620	XMRP	33.4360 IN.
							YMRP	0.0000 IN.
							ZMRP	3.9380 IN.
							SCALE	0.0175

MACH 0.201

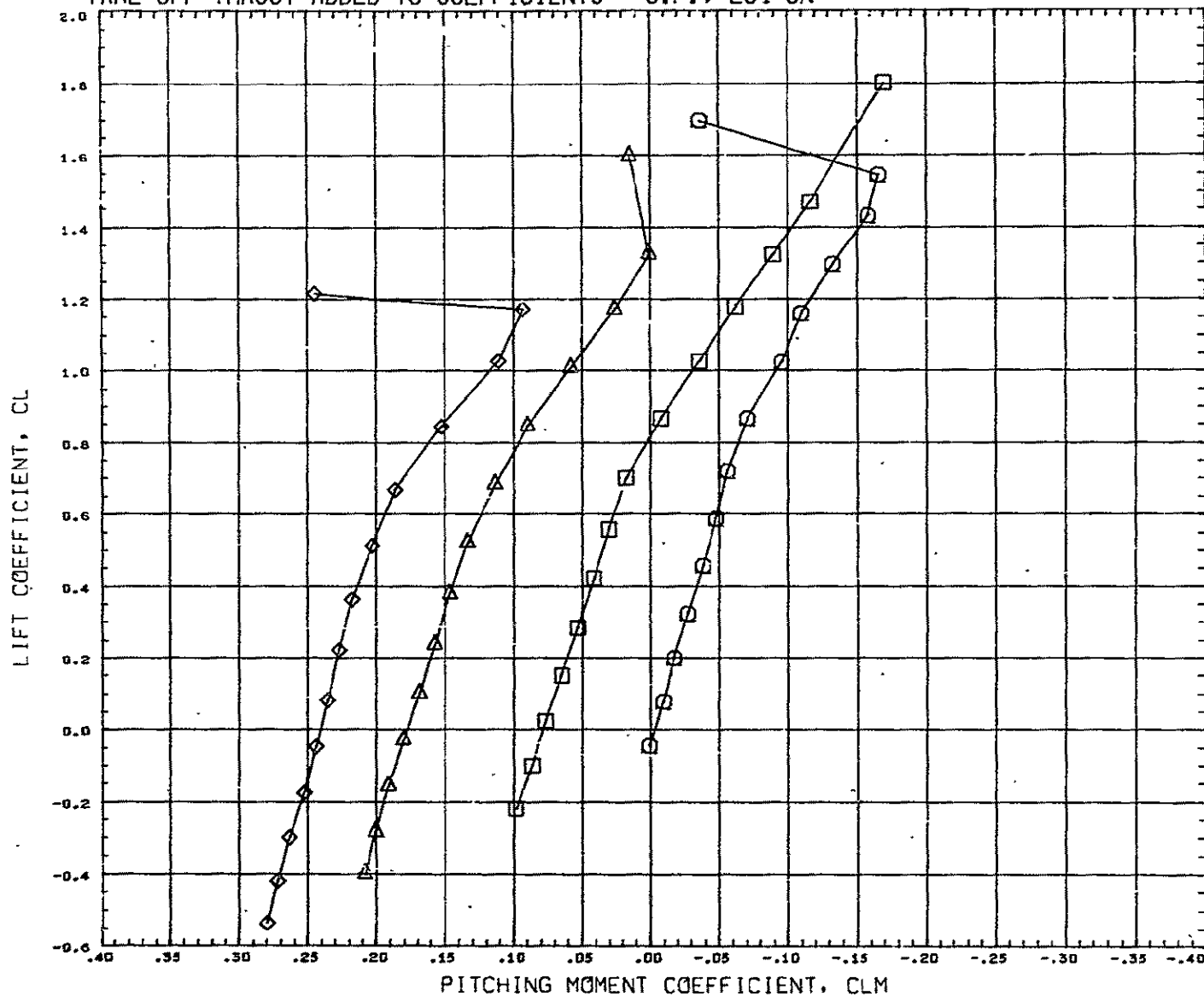
TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 ON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION	
(RCVC20)	GDLST 587-1 B21X1V7C4W16G3E34 + GP, DC = 10	0.000	10.000	10.000	0.620	SREF	380.3004 SQ. IN
(RCVC22)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	-10.000	10.000	0.620	LRCF	15.2150 IN.
(RCVC24)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	-20.000	10.000	0.620	BREF	30.4400 IN.
(RCVC26)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	0.000	10.000	0.620	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

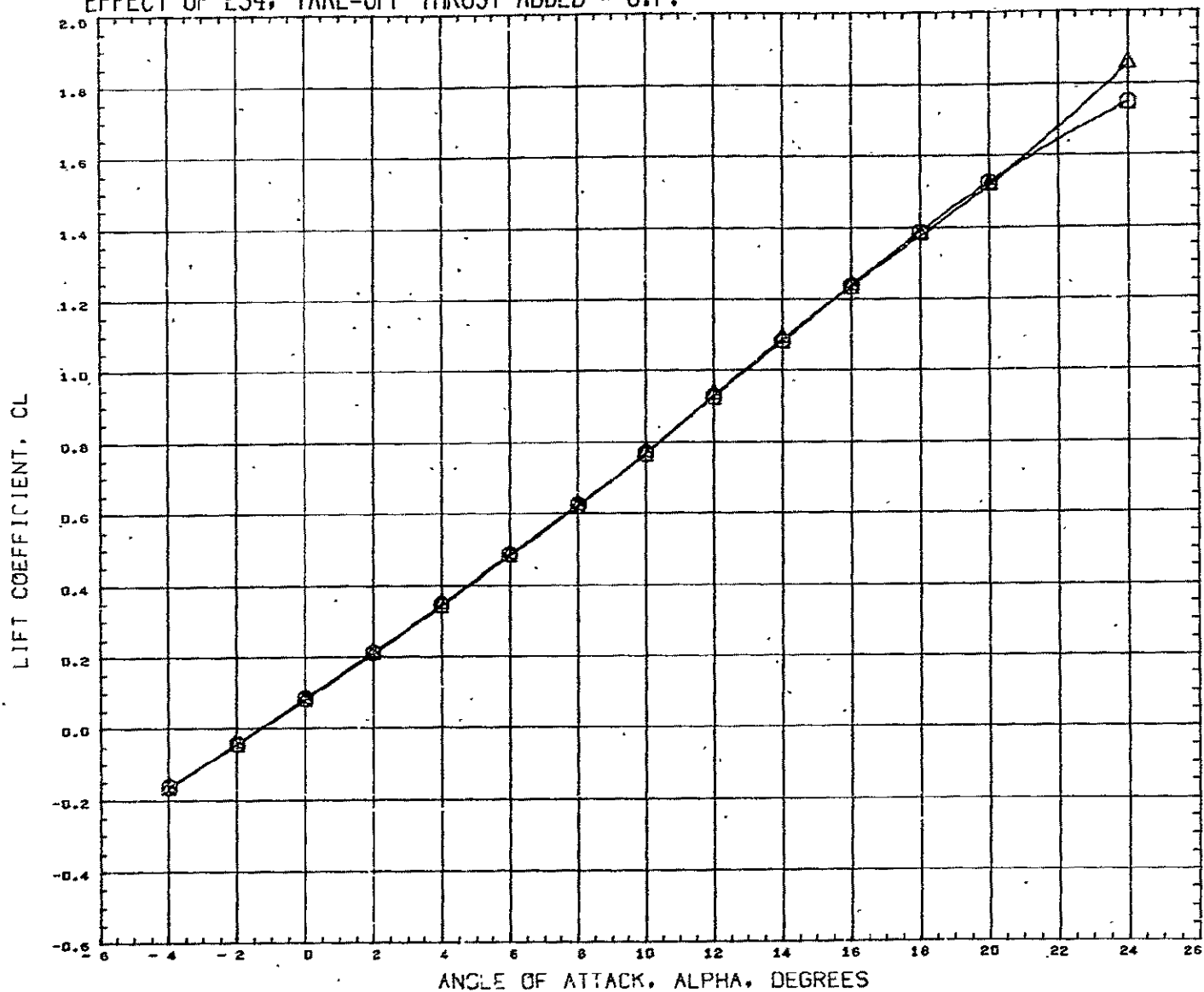
TAKE-OFF THRUST ADDED TO COEFFICIENTS - G.P., E34 ON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION	
(RCVC20)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	10.000	10.000	0.620	SREF	390.3004 SQ. IN
(RCVC22)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	-10.000	10.000	0.620	LREF	15.2155 IN.
(RCVC24)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	-20.000	10.000	0.620	BREF	30.4400 IN.
(RCVC26)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 10	0.000	0.000	10.000	0.620	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

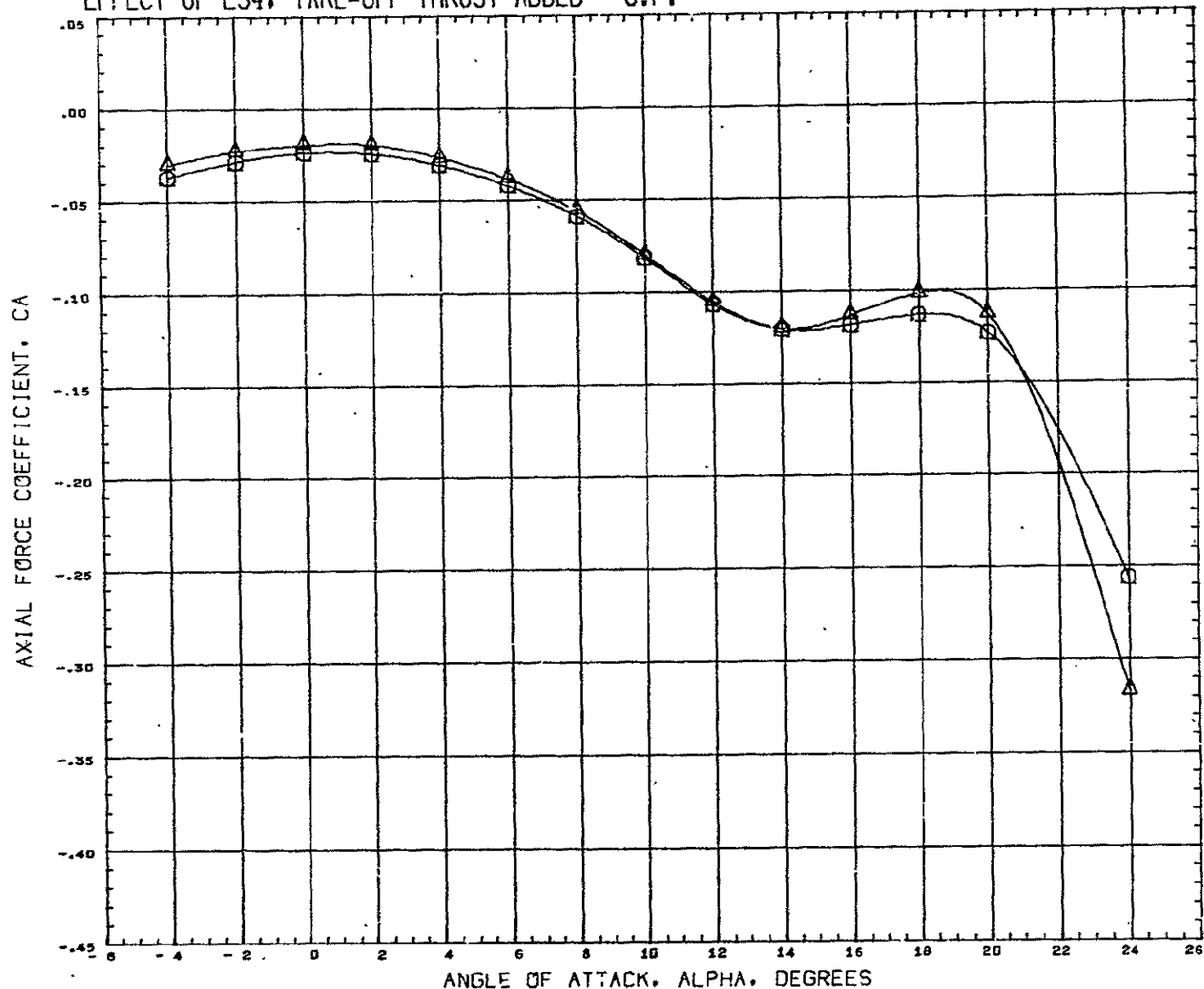
EFFECT OF E34, TAKE-OFF THRUST ADDED - G.P.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION		
(RCVC12)	Q GDLST 587-1 821X1V7C4W16G3 + GP DC = 15	0.000	3.000	15.000	0.620	SREF	380.3004	SQ. IN
(RCVC18)	Q GDLST 587-1 821X1V7C4W16G3E34 + GP DC = 15	0.000	3.000	15.000	0.620	LREF	15.2150	IN.
						BREF	30.4400	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9386	IN.
						SCALE	0.0175	

MACH 0.201

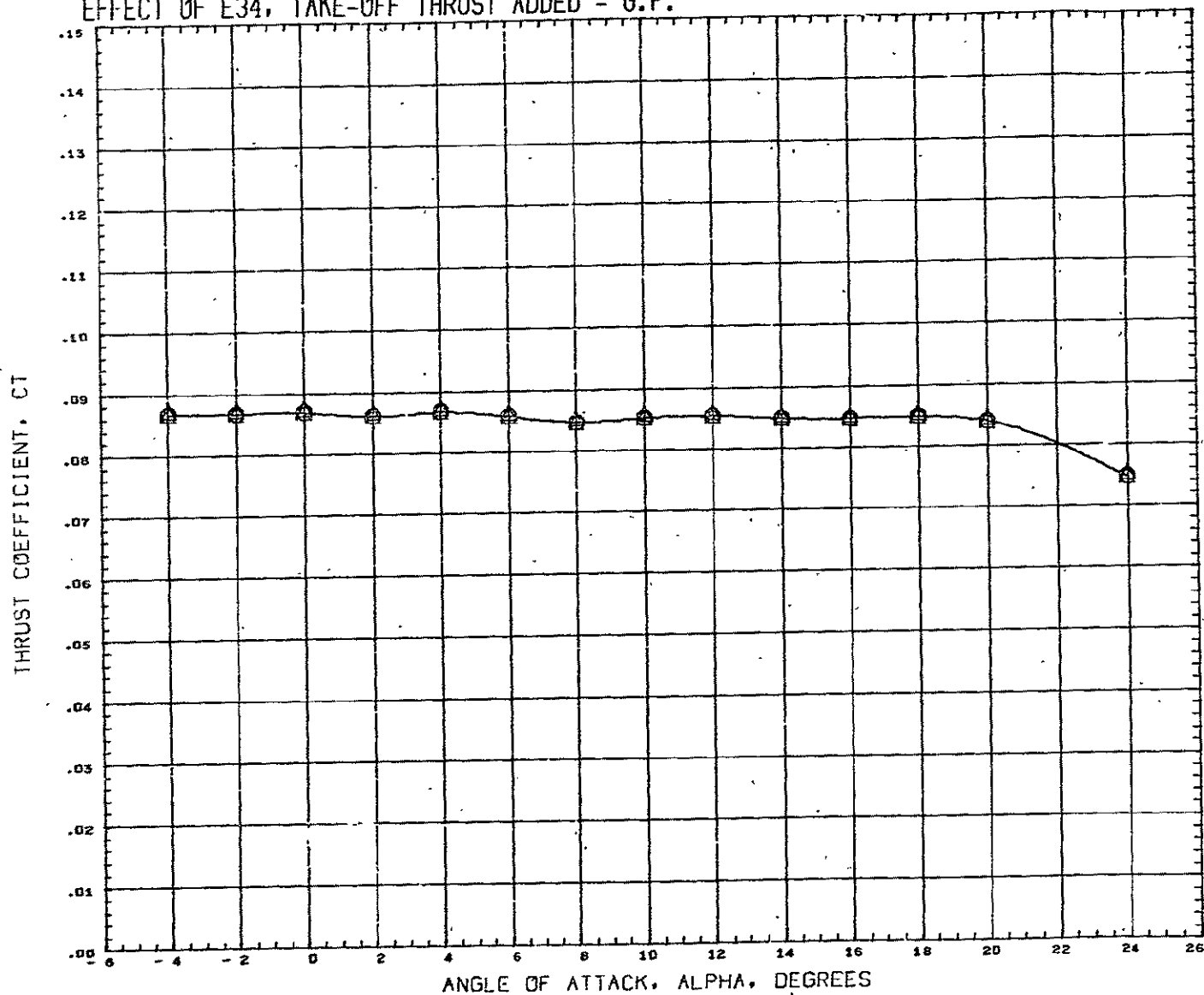
EFFECT OF E34, TAKE-OFF THRUST ADDED - G.P.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC12)	Q GDLST 587-1 B21X1V7C4W16G3 + GP DC = 15	0.000	3.000	15.000	0.620	SREF 380.3004 SQ. IN
(RCVC18)	Q GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 15	0.000	3.000	15.000	0.620	LREF 15 216" IN.
						BREF 30.4400 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

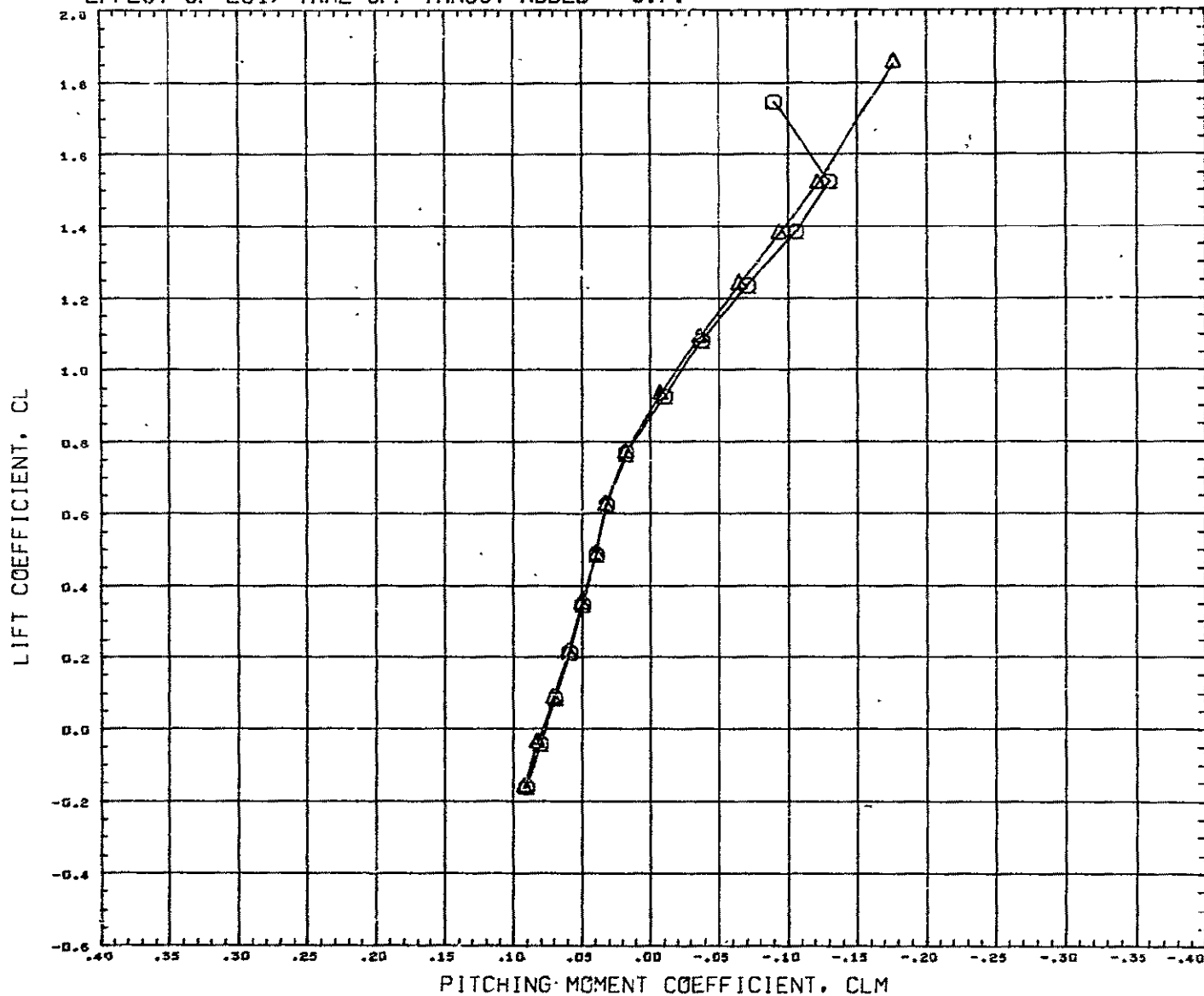
EFFECT OF E34, TAKE-OFF THRUST ADDED - G.P.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION	
(RCVC12)	GDLST 587-1 B21X1V7C4W16G3 + GF DC = 15	0.000	3.000	15.000	0.620	SREF	380.3004 SQ. IN
(RCVC18)	GDLST 587-1 B21X1V7C4W16G3E34 + GF DC = 15	0.000	3.000	15.000	0.620	LREF	15.2154 IN.
						GREF	30.4400 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0173

MACH 0.201

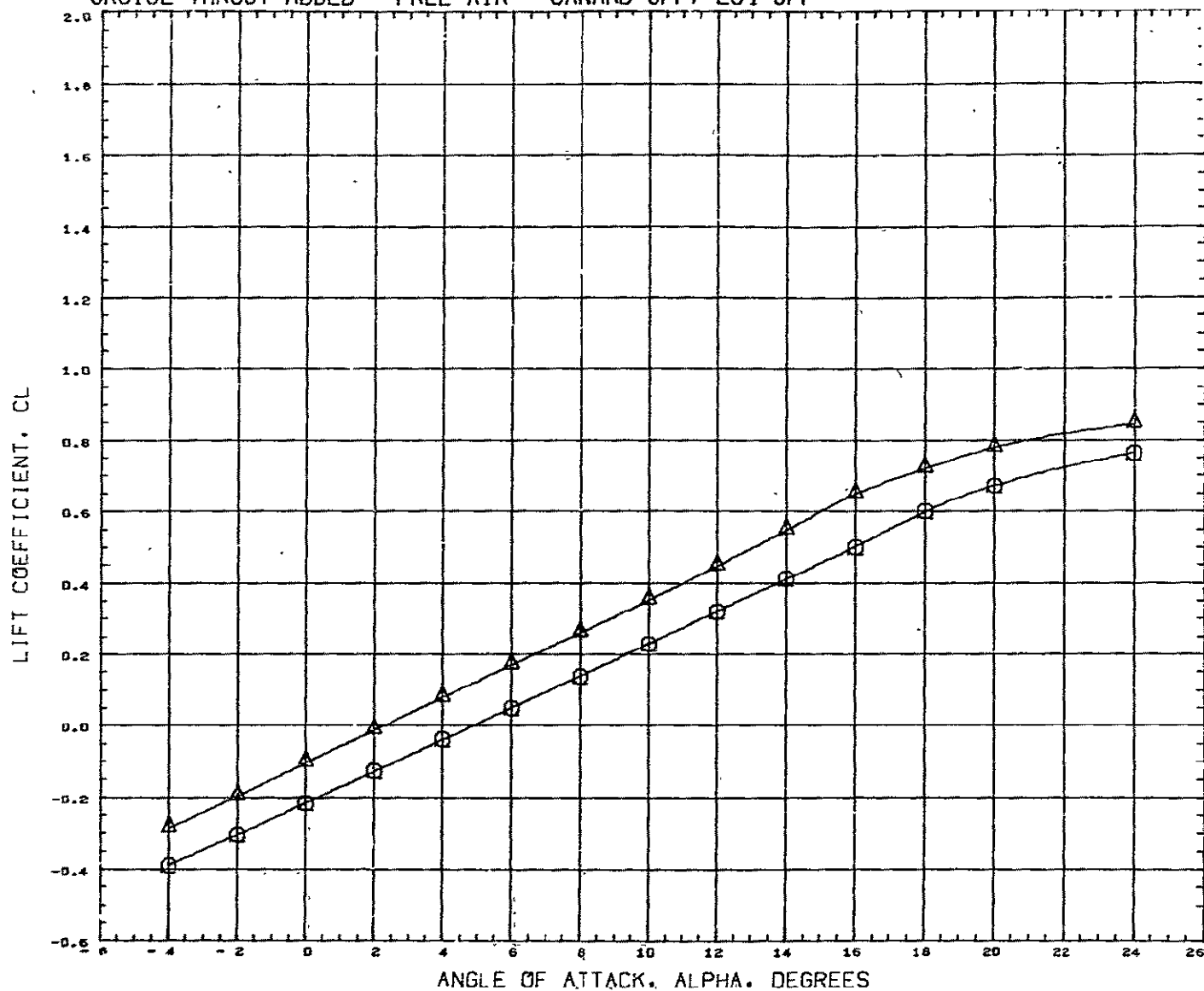
EFFECT OF E34, TAKE-OFF THRUST ADDED - G.P.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION	
(RCVC12)	GDLST 587-1 B21X1V7C4W16G3 + GP DC = 15	0.000	3.000	15.060	0.625	SREF	360.3004 SQ. IN
(RCVC16)	GDLST 587-1 B21X1V7C4W16G3E34 + GP DC = 15	0.000	3.000	15.000	0.620	LREF	15.2150 IN.
						BREF	30.4400 IN.
						XWRP	33.4360 IN.
						YWRP	0.0000 IN.
						ZWRP	3.9380 IN.
						SCALE	0.0175

MACH 0.201

CRUISE THRUST ADDED - FREE AIR - CANARD OFF, E34 OFF



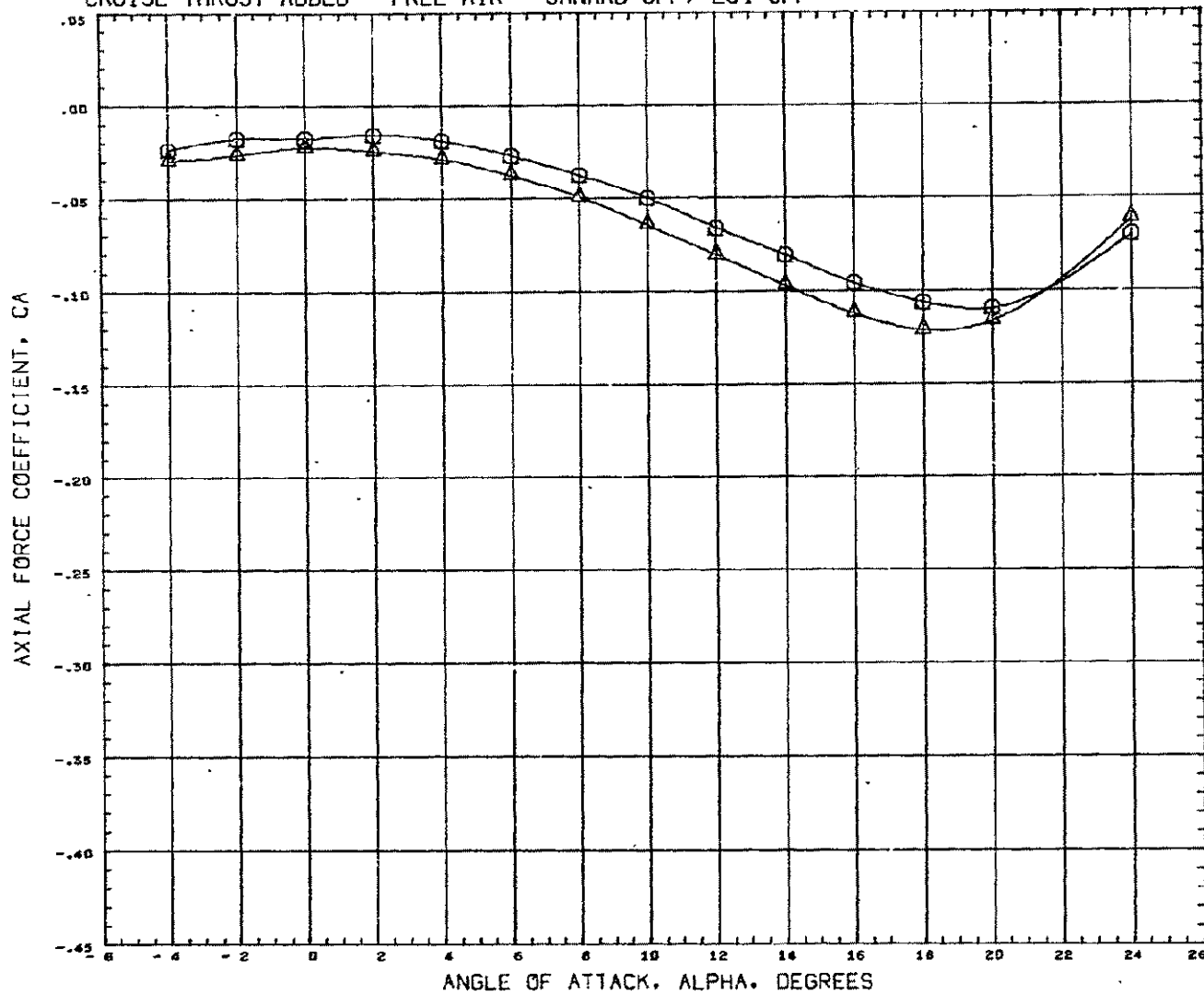
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RCVC32) \bigcirc GDLST 587-1; B21X1V7W16 DE = -20
 (RCVC34) \triangle GDLST 587-1 B21X1V7W16 DE = -10

BETA ELEVTR FLOW
 0.000 -20.000 0.520
 0.000 -10.000 0.520

REFERENCE INFORMATION
 SREF 380.300a SQ. IN
 LREF 15.215 IN.
 BREF 30.440 IN.
 XMRP 33.436 IN.
 YMRP 0.000 IN.
 ZMRP 3.938 IN.
 SCALE 0.0175

MACH 0.201

CRUISE THRUST ADDED - FREE AIR - CANARD OFF, E34 OFF



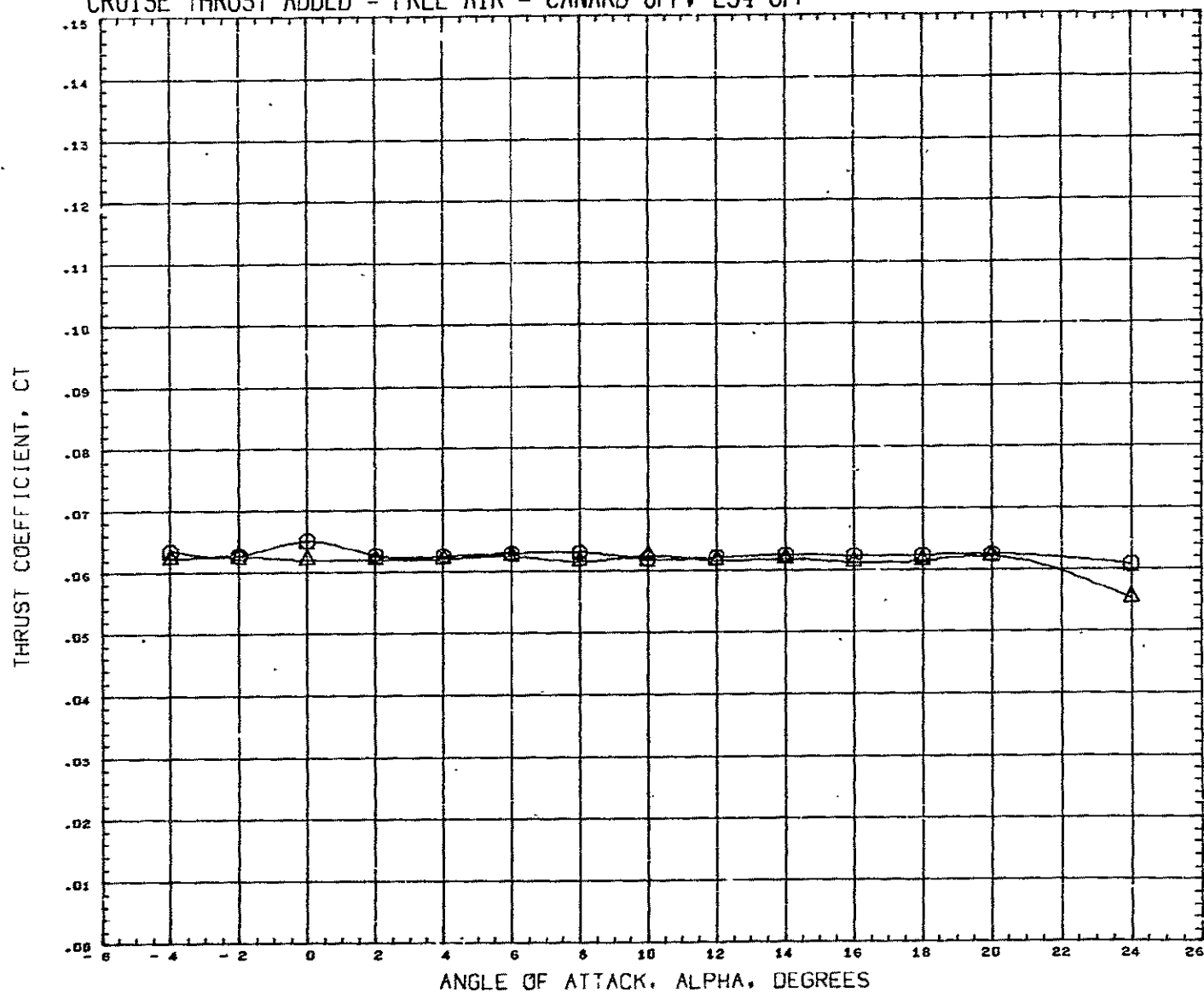
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RCVC32) COLST 587-1 B21X1V7W16 DE = -20
 (RCVC34) COLST 587-1 B21X1V7W16 DE = -10

BETA ELEVTR FLOW
 0.000 -20.000 0.520
 0.000 -15.000 0.520

REFERENCE INFORMATION
 SREF 380.3004 99. IN
 LREF 15.2156 IN.
 BREF 30.4400 IN.
 XHRP 33.4360 IN.
 YHRP 0.0000 14.
 ZHRP 3.9360 IN.
 SCALE 0.0175

MACH 0.201

CRUISE THRUST ADDED - FREE AIR - CANARD OFF, E34 OFF



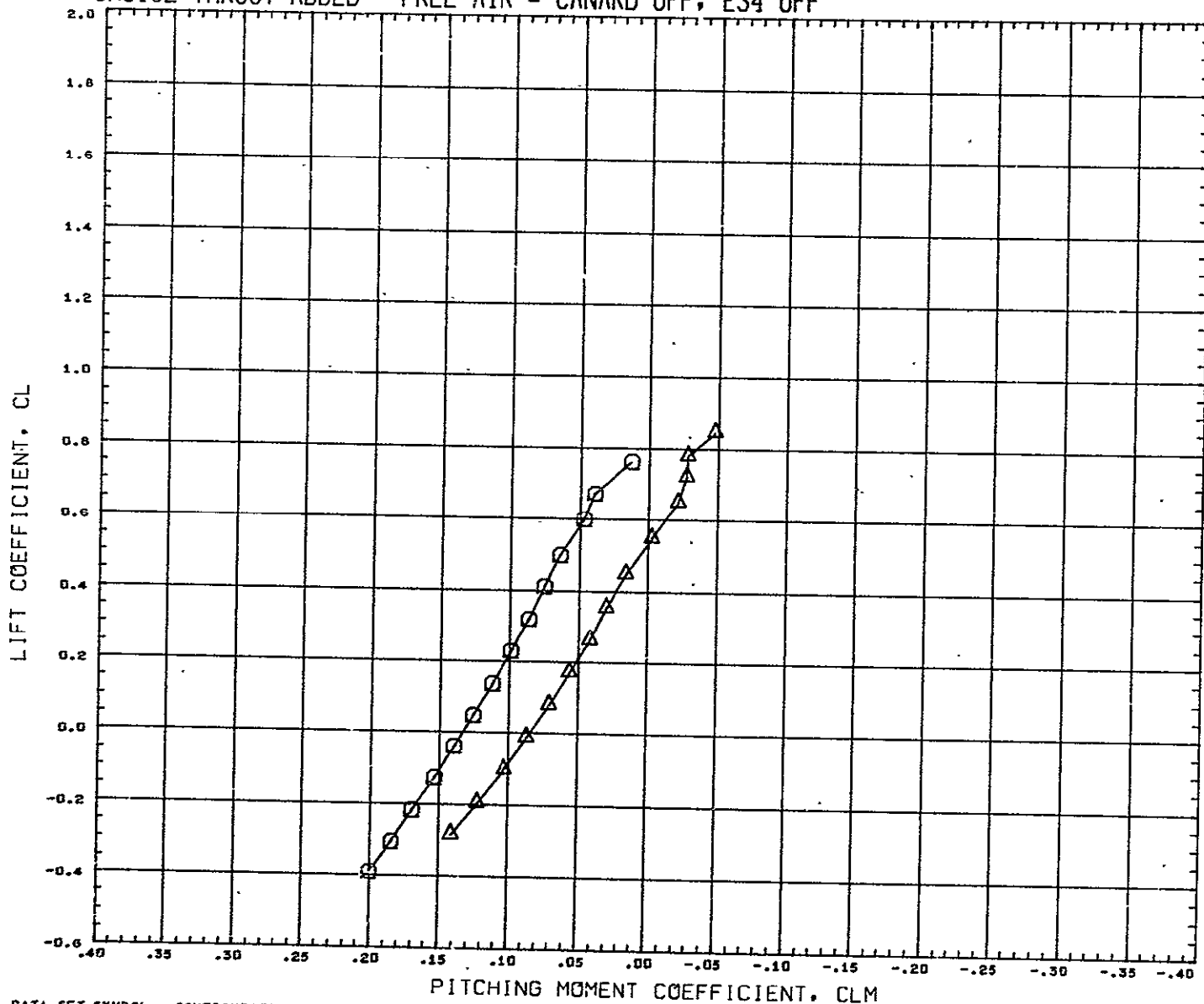
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RCVC32) ○	GDLST 587-1 B21X1V7W16 DE = -20
(RCVC34) △	GDLST 587-1 B21X1V7W16 DE = -10

BETA	ELEVTR	FLOW
0.000	-20.000	0.520
0.000	-10.000	0.520

REFERENCE INFORMATION	
SREF	360.3004 SQ. IN
LREF	15.2150 IN.
BREF	30.4400 IN.
XNRP	33.4360 IN.
YNRP	0.0000 IN.
ZNRP	3.9380 IN.
SCALE	0.0175

MACH 0.201

CRUISE THRUST ADDED - FREE AIR - CANARD OFF, E34 OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RCVC32) GOLST 587-1 B21X1V7416
 (RCVC34) GOLST 587-1 B21X1V7416

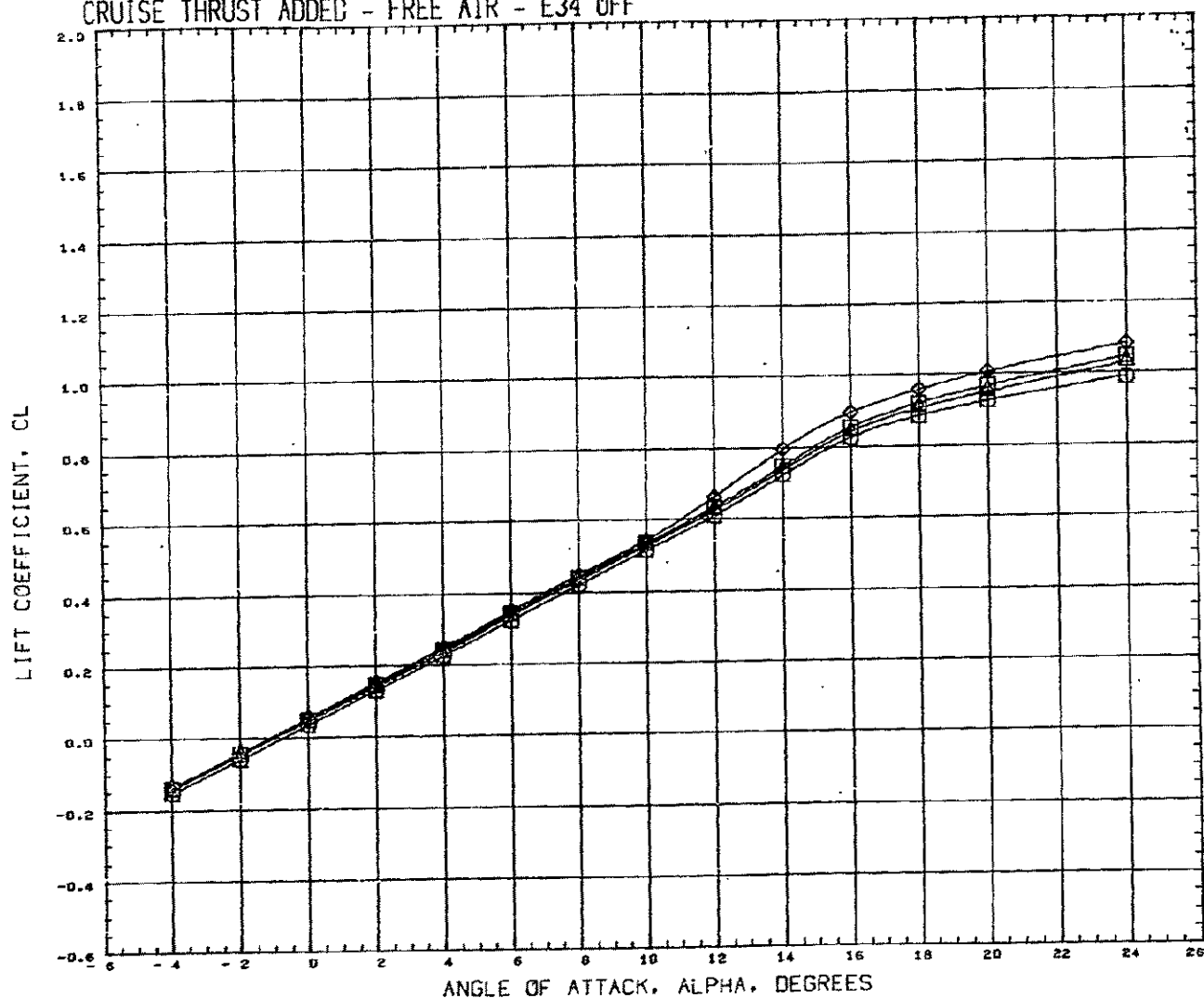
PITCHING MOMENT COEFFICIENT, CLM

BETA ELEVTR FLOW
 0.000 -20.000 0.520
 0.000 -10.000 0.520

REFERENCE INFORMATION
 SREF 380.3004 SQ. IN
 LREF 15.2155 IN.
 BREF 30.4400 IN.
 XMRP 33.4360 IN.
 YMRP 0.0000 IN.
 ZMRP 3.9380 IN.
 SCALE 0.0175

MACH 0.201

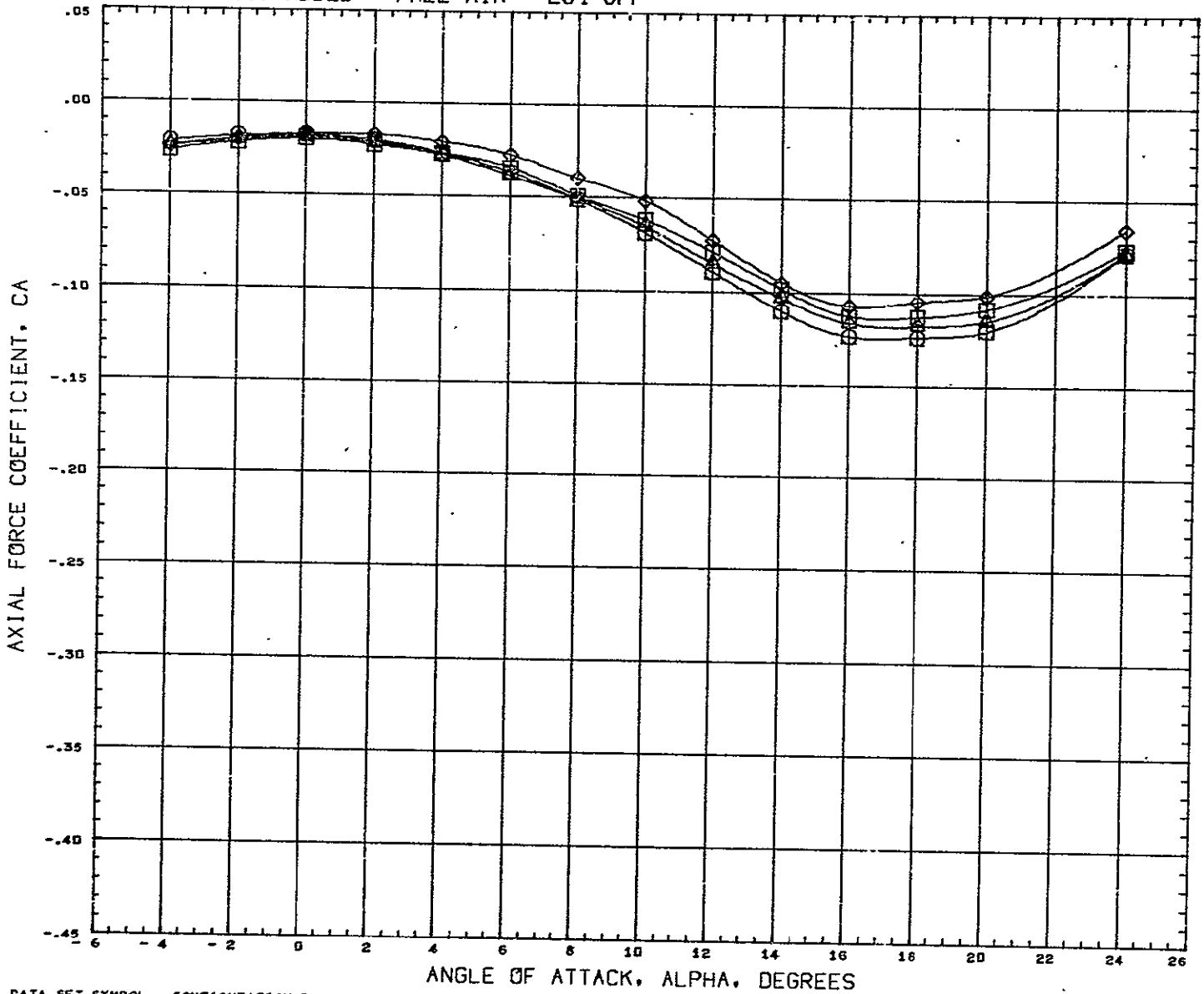
CRUISE THRUST ADDED - FREE AIR - E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC38)	GDLST 587-1 B21X1C4V7W16 DC = -10 DE = 0	0.000	0.000	-10.000	0.520	SREF 360.3004 SQ. IN
(RCVC40)	GDLST 587-1 B21X1C4V7W16 DC = 0 DE = 0	0.000	0.000	0.000	0.520	LREF 15.2156 IN.
(RCVC42)	GDLST 587-1 B21X1C4V7W16 DC = 10 DE = 0	0.000	0.000	10.000	0.520	BREF 30.4400 IN.
(RCVC46)	GDLST 587-1 B21X1C4V7W16 DC = 5 DE = 0	0.000	0.000	5.000	0.520	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

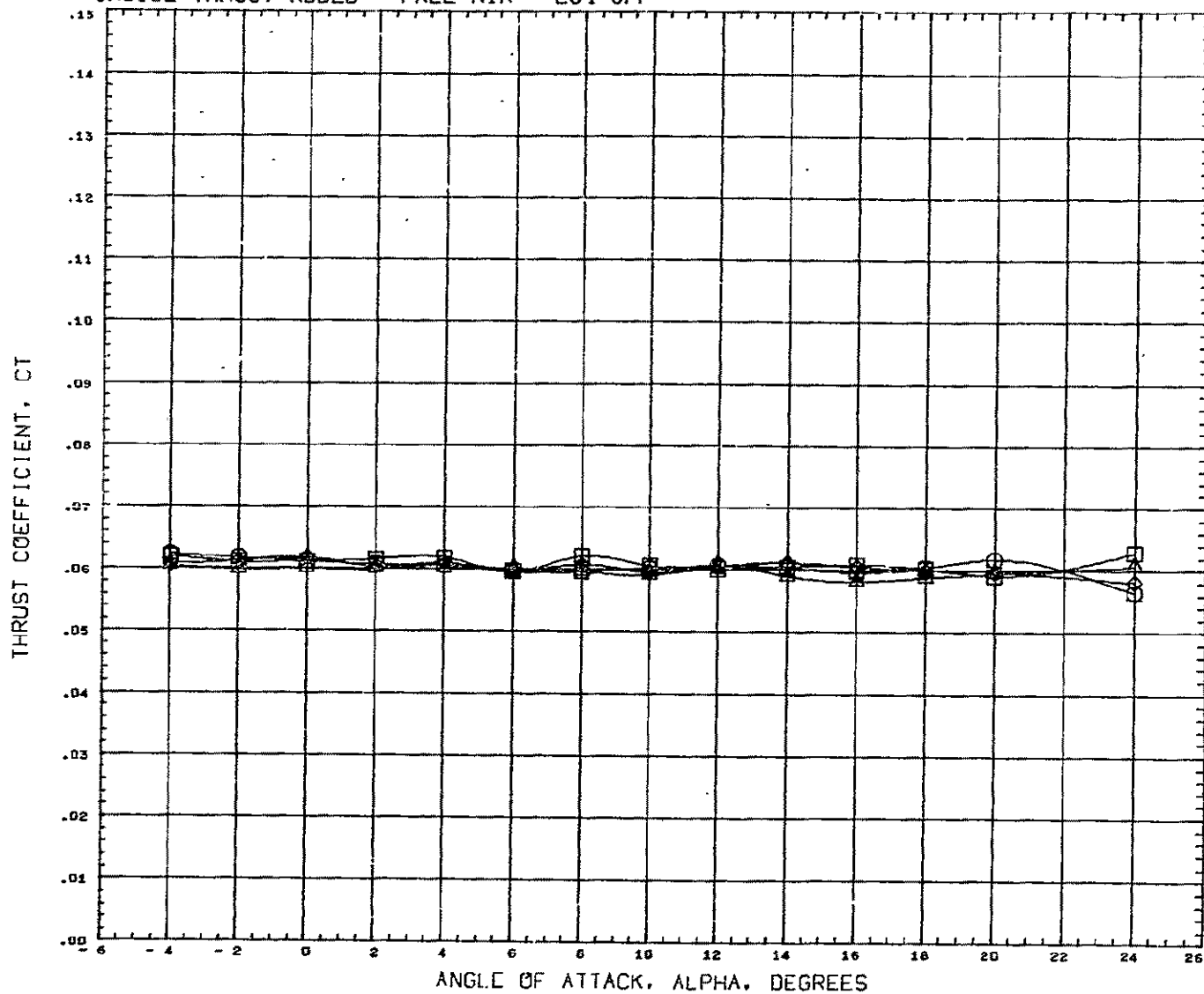
CRUISE THRUST ADDED - FREE AIR - E34 OFF



DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	DC	DE	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION		
(RCVC38)	○	GDLST 587-1	B21X1C4V7W16	DC = -10	DE = 0	0.000	0.000	-10.000	0.520	SREF	380.3000	SQ. IN
(RCVC40)	△	GDLST 587-1	B21X1C47W16	DC = 0	DE = 0	0.000	0.000	0.000	0.520	LPEF	15.2150	IN.
(RCVC42)	◇	GDLST 587-1	B21X1C4V7W16	DC = 10	DE = 0	0.000	0.000	10.000	0.520	BREF	30.4400	IN.
(RCVC46)	□	GDLST 587-1	B21X1C4V7W16	DC = 5	DE = 0	0.000	0.000	5.000	0.520	XMRP	33.4360	IN.
										YMRP	0.0000	IN.
										ZMRP	3.9380	IN.
										SCALE	0.0175	

MACH 0.201

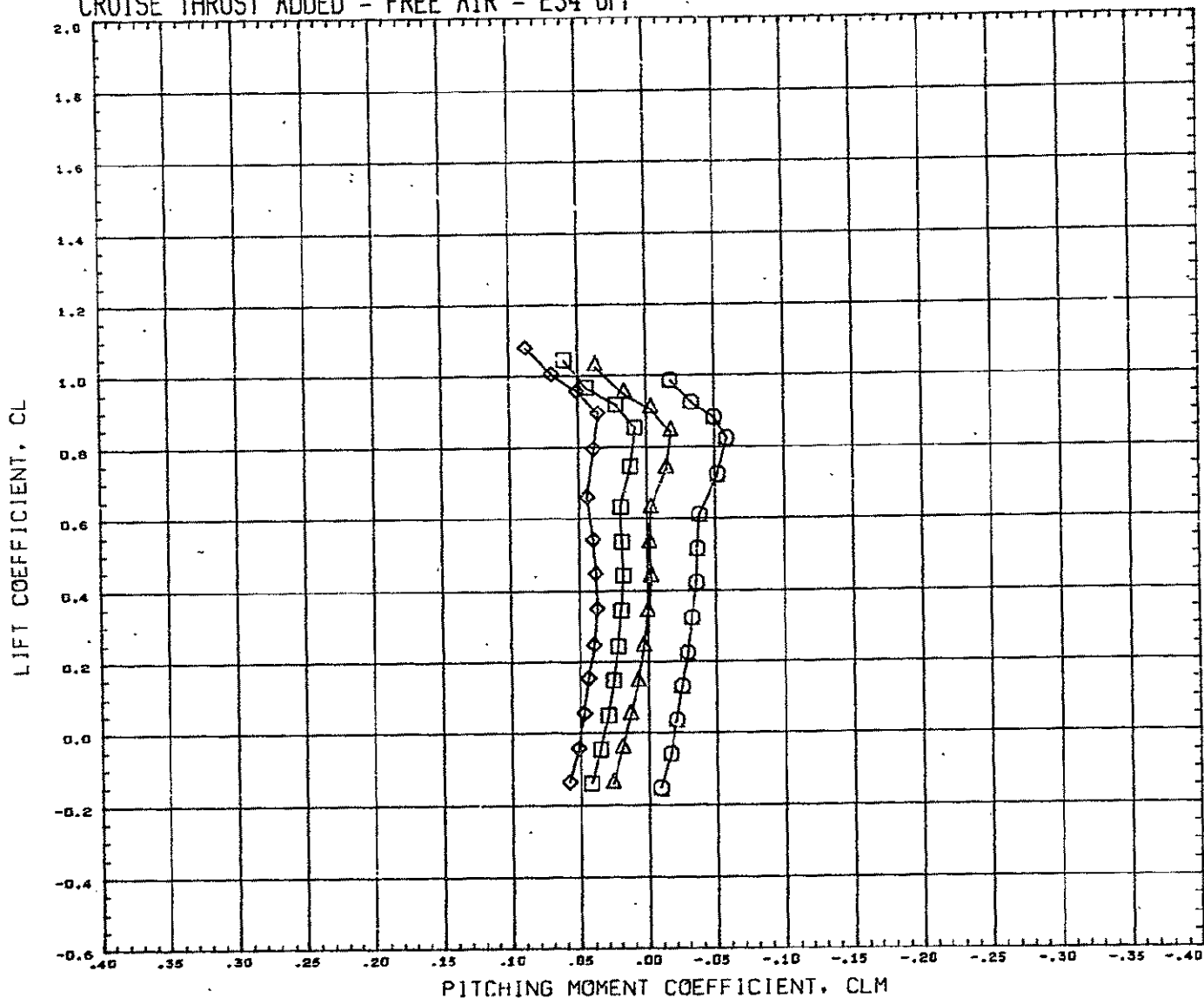
CRUISE THRUST ADDED - FREE AIR - E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION	
(RCVC38)	GDLST 587-1 B21X1C4V7W16	DC = -10	DE = 0	0.000	0.000	-10.000	0.520	SREF	380.3004 SQ. IN
(RCVC40)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.520	LREF	15.2150 IN.
(RCVC42)	GDLST 587-1 B21X1C4V7W16	DC = 10	DE = 0	0.000	0.000	10.000	0.520	BREF	30.4400 IN.
(RCVC46)	GDLST 587-1 B21X1C4V7W16	DC = 5	DE = 0	0.000	0.000	5.000	0.520	XMRP	33.4360 IN.
								YMRP	0.0000 IN.
								ZMRP	3.9380 IN.
								SCALE	0.0175

NACH 0.201

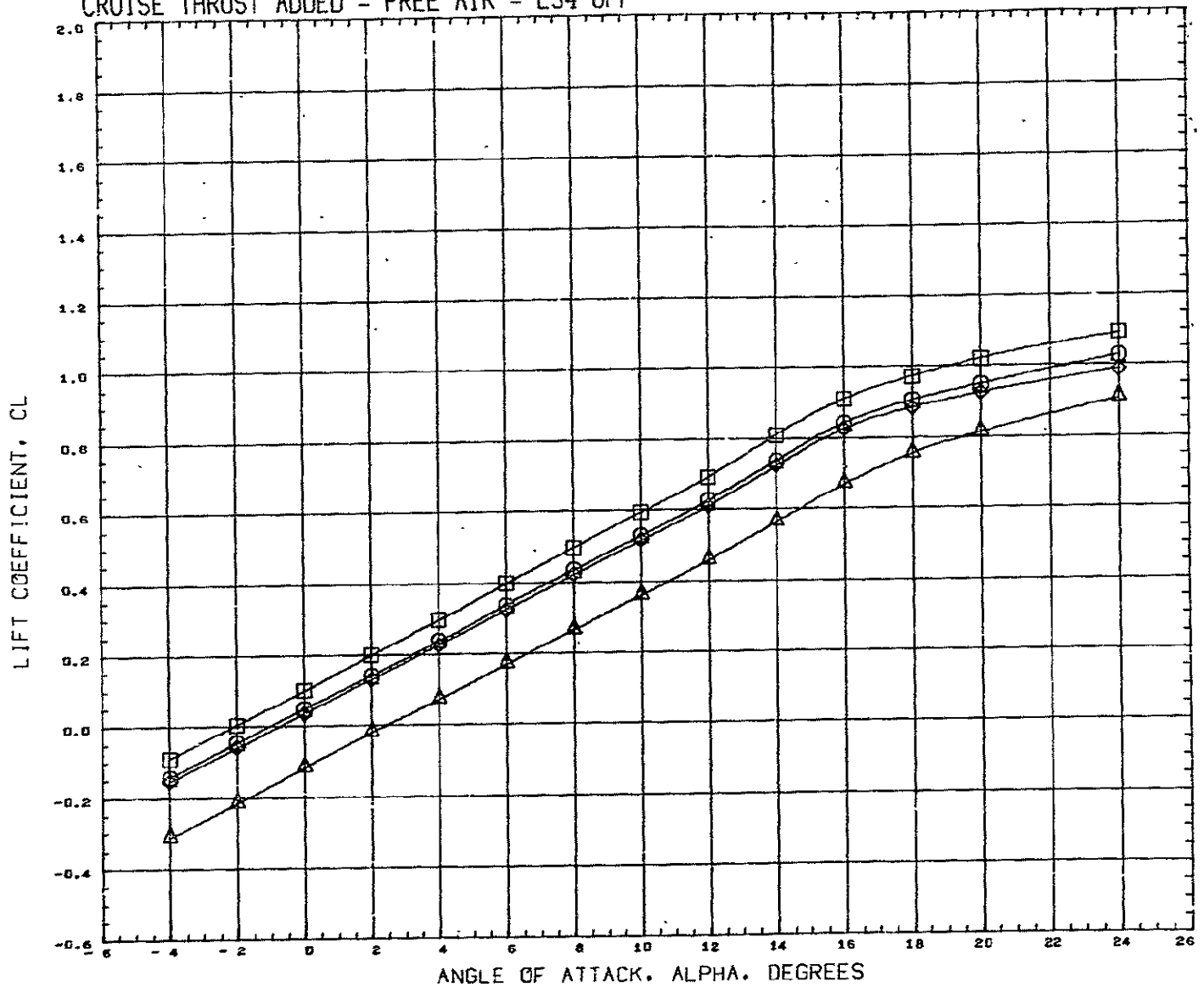
CRUISE THRUST ADDED - FREE AIR - E34 OFF



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION		
(RCVC38)	○	GDLST 587-1 B21X1C4V7W16	DC = -10	DE = 0	0.000	0.000	-10.000	0.520	SREF	380.3004	Sq. IN
(RCVC40)	△	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.520	LRFF	15.2156	IN.
(RCVC42)	◇	GDLST 587-1 B21X1C4V7W16	DC = 10	DE = 0	0.000	0.000	10.000	0.520	BREF	30.4400	IN.
(RCVC46)	□	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	5.000	0.520	XMRP	33.4360	IN.
									YMRP	0.0000	IN.
									ZMRP	3.9380	IN.
									SCALE	0.0175	

MACH 0.201

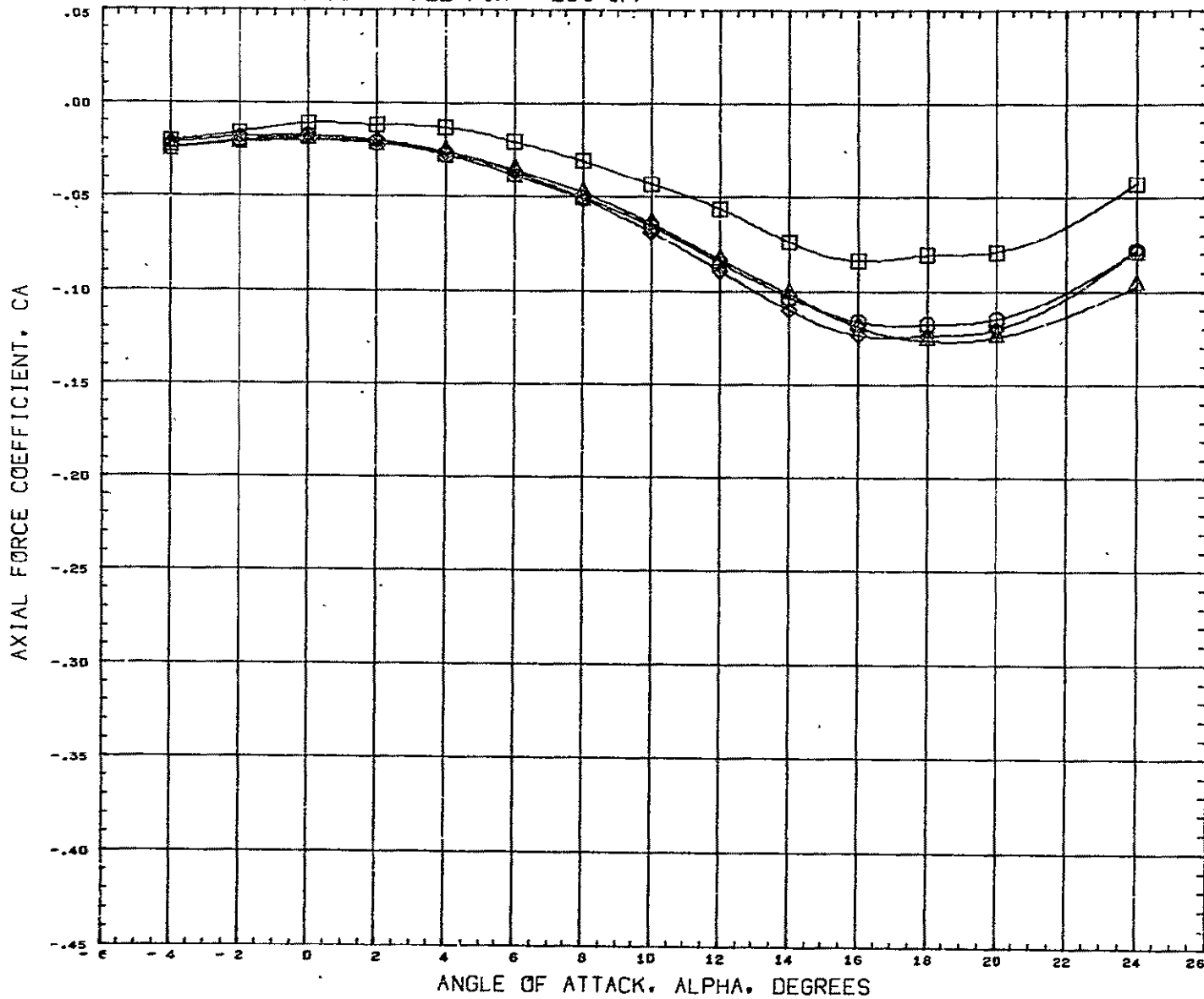
CRUISE THRUST ADDED - FREE AIR - E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION	
(RCVC40)	GDLST 587-1 B21X1C4V7W16	0	0	0.000	0.000	0.000	0.520	SREF	360.5004 Sq. IN
(RCVC36)	GDLST 587-1 B21X1C4J7W16	-10	-10	0.000	-10.000	-10.000	0.520	LREF	15.2150 IN.
(RCVC38)	GDLST 587-1 B21X1C4V7W16	-10	0	0.000	0.000	-10.000	0.520	BREF	30.4400 IN.
(RCVC44)	GDLST 587-1 B21X1C4V7W16	15	3	0.000	3.000	15.000	0.520	XHRP	33.4360 IN.
								YHRP	0.0000 IN.
								ZHRP	3.9380 IN.
								SCALE	0.6175

MACH 0.201

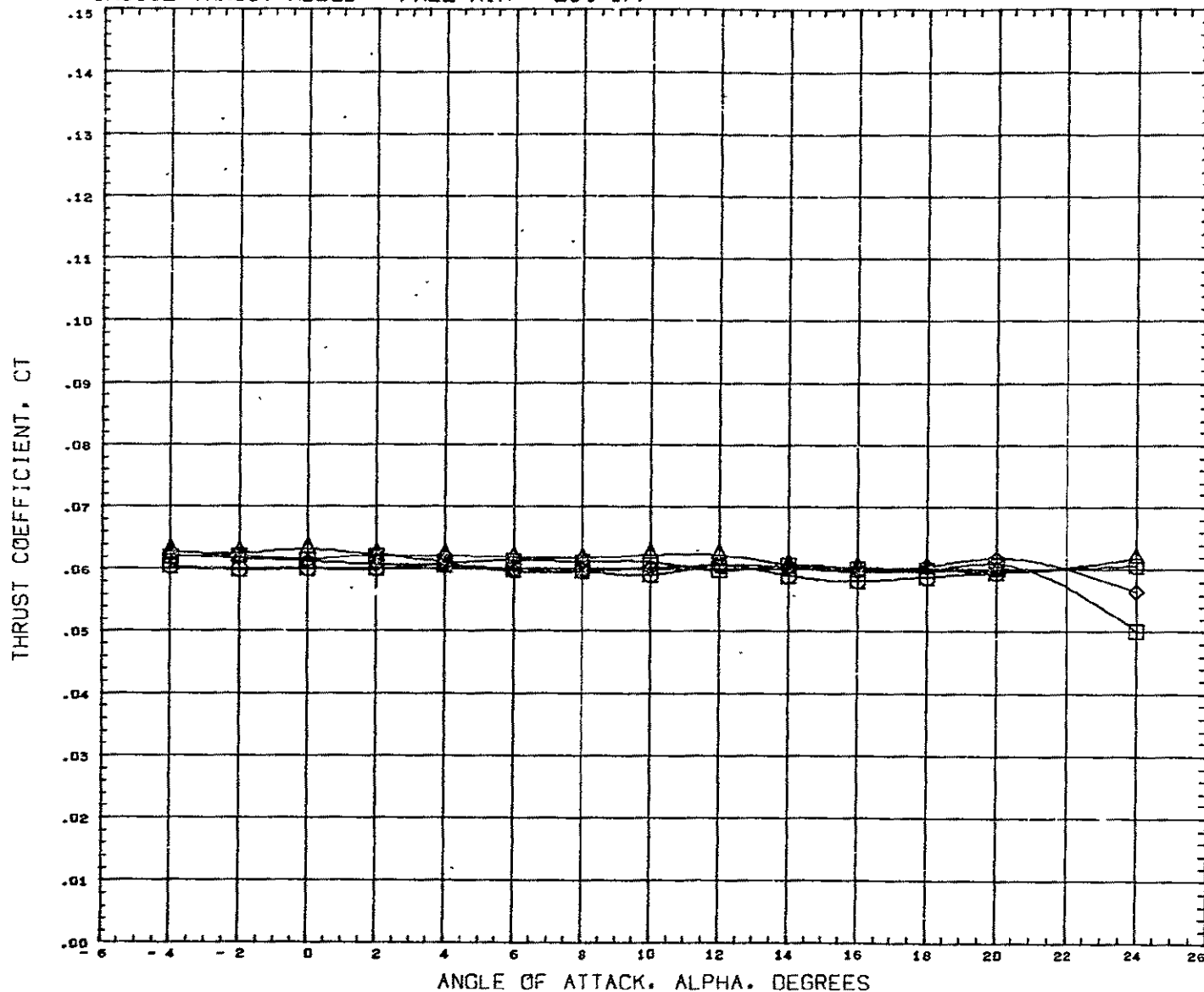
CRUISE THRUST ADDED - FREE AIR - E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC4G)	GDLST 587-1 B21X1C4V7W16 DC = 0 DE = 0	0.000	0.000	0.000	0.520	SREF 380.3004 SQ. IN
(RCVC26)	GDLST 587-1 B21X1C4V7W16 DC = -10 DE = -10	0.000	-10.000	-10.000	0.520	LREF 15.2154 IN.
(RCVC38)	GDLST 587-1 B21X1C4V7W16 DC = -10 DE = 0	0.000	0.000	-10.000	0.520	BREF 30.4400 IN.
(RCVC44)	GDLST 587-1 B21X1C4V7W16 DC = 15 DE = 3	0.000	3.000	15.000	0.520	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

MACH 0.201

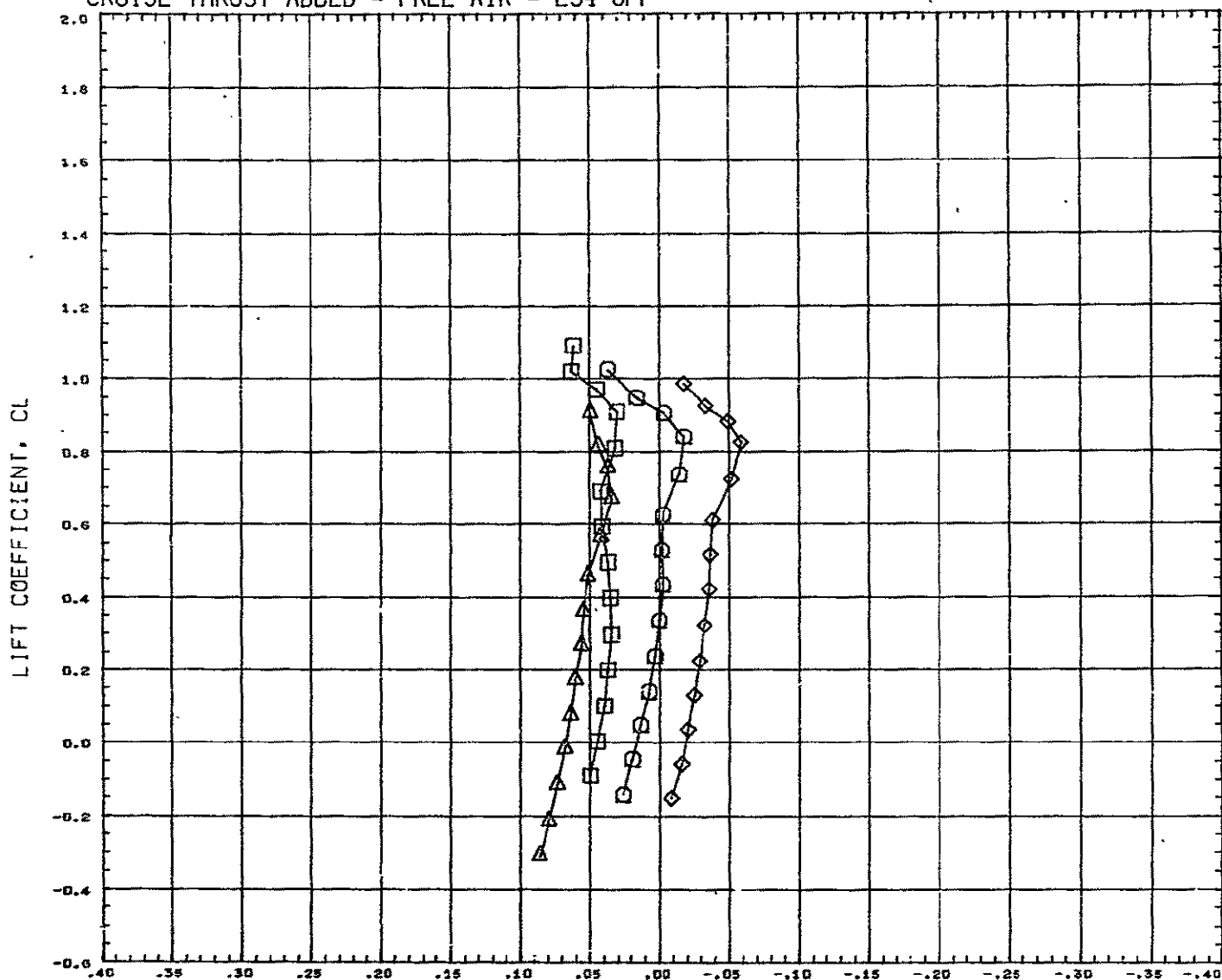
CRUISE THRUST ADDED - FREE AIR - E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DC	DE	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION		
(RCVC40)	GDLST 587-1 B21X1C4V7W16	DC = 0	DE = 0	0.000	0.000	0.000	0.520	SREF	380.3004	SQ. IN
(RCVC36)	GDLST 587-1 B21X1C4V7W16	DC = -10	DE = -10	0.000	-10.000	-10.000	0.520	LREF	15.2150	IN.
(RCVC38)	GDLST 587-1 B21X1C4V7W16	DC = -10	DE = 0	0.000	0.000	-10.000	0.520	BREF	30.4400	IN.
(RCVC44)	GDLST 587-1 B21X1C4V7W16	DC = 15	DE = 3	0.000	3.000	15.000	0.520	XMRP	33.4360	IN.
								YMRP	0.0000	IN.
								ZMRP	3.9380	IN.
								SCALE	0.0175	

MACH 0.201

CRUISE THRUST ADDED - FREE AIR - E34 OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	CANVTR	FLOW	REFERENCE INFORMATION
(RCVC40)	GDLST 587-1 B21X1C4V7W16 DC = 0 DE = 0	0.000	0.000	0.000	0.520	SREF 380,300. SQ. IN
(RCVC36)	GDLST 587-1 B21X1C4V7W16 DC = -10 DE = -10	0.000	-10.000	-10.000	0.520	LREF 15,2150 IN.
(RCVC38)	GDLST 587-1 B21X1C4V7W16 DC = -10 DE = 0	0.000	0.000	-10.000	0.520	BREF 30,4400 IN.
(RCVC44)	GDLST 587-1 B21X1C4V7W16 DC = 15 DE = 3	0.000	3.000	15.000	0.520	XMRP 33,4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

NACH 0-201